

**AAS Job Register Editorial**

**Job Register Fee Change**

The AAS Job Register has always had a 250 word limit per job announcement. This limit encourages the brief and informative description of jobs and greatly aids job seekers by limiting announcements to a reasonable length. In the past, we worked with institutions to edit their announcements to meet this limit, but this was always an inconvenience for both the AAS and the publishing institution. Announcements beyond the 250 word limit can now appear, but will incur a \$0.25 per word surcharge. It is understood that some announcements must be longer than 250 words and this fee was set low so as not to incur an undue financial penalty on these lengthy announcements. The Job Register announcement base rate remains at a very low rate compared to comparable services provided by other professional societies. The AAS will continue to strive to maintain a low rate for the announcement of employment opportunities, which we feel is of significant benefit to the astronomical community and continues to secure the AAS Job Register's position as the number one source for astronomical employment opportunities.

Kevin B. Marvel  
Executive Officer

**Publication Policy for the AAS Job Register**

**Deadlines for submission**

Job announcements may be submitted at any time and should be submitted well before the deadline so that any errors or difficulties can be resolved efficiently. Job announcements must be received by the 15th and paid for by the 25th of each month for publication in the subsequent issue of the *Job Register*.

**If payment is not received, then the announcement will not run in the next month's issue, but in the subsequent month's issue.** We recommend that submission and payment be made well in advance of the monthly deadline.

**Examples**

- Submit and pay by 15 October - Announcement will appear in the November *Job Register*
- Submit and pay by 19 October - Announcement will appear in the December *Job Register*
- Submit by 15 October, but pay after that date but before December 1 - Announcement will appear in the December *Job Register*.

**Rate Sheet**

For rate information please see the [job register submission form](#). Employers must indicate how they will pay for their announcement at the time of submission.

We accept payment by:  
Check, in US currency drawn on a US bank. VISA and MasterCard be sure to include expiration date.  
Checks should be made payable to American Astronomical Society and sent to:

American Astronomical Society  
Attention Job Register Payment  
2000 Florida Ave., NW Suite 400  
Washington, DC 20009-1231, USA

- Phone: 202-328-2010
- FAX: 202-234-2560

The AAS is a small, scientific, non-profit organization. The AAS Federal Identification number is 21-0735173. In very rare circumstances a discount may be available for institutions from developing countries. In all cases, a formal petition for a reduced fee must be sent by email or FAX to the Deputy Executive Officer, [Dr. Kevin B. Marvel](#) requesting a discount and justifying the request.

In no case will the discount exceed a 50% reduction in the publishing fee or will discounts be available for more than one announcement per year.

**Announcement Requirements**

The word count limit per listing is 250 words. For longer ads, a \$0.25 per word charge will be applied. Jobs will not be published without the following:

1. Indication that the vacancy is *bona fide* and that the position has not been promised to anyone;
2. for first time publication, an application closing date that falls no earlier than the last day of the month of publication; and
3. a check or appropriate billing information as described above.

We encourage advertisers to provide URLs to relevant web sites with their job announcements or additional information (e.g. department homepage).

We also STRONGLY encourage employers to include in the postings information about benefits offered or to link to this information. This is especially important to clarify for post-doctoral or other non-permanent positions. We also encourage applicants to inquire and obtain a clear picture of the benefits at the time any offer is proffered.

Previously published position announcements may be re-published for additional months as long as the closing date is one month or more from the initial publication date of the job. Example: A job initially published in the January issue may be re-published in the February issue and have a closing date in February.

The AAS Job Register cannot require overseas employers to comply with any U.S. regulations regarding employment discrimination.

**Submission**

All jobs should be submitted using the [Web Submission Form](#) or, if necessary, send your advertisement by electronic mail to [jobs@aaas.org](mailto:jobs@aaas.org). If electronic mail is not available, job announcements, with payment are also accepted by US mail, and by FAX at 202-234-2560.

**AAS Postdoctoral Position Policy**

The AAS Council has passed (1988) and reaffirmed (2003) a resolution stating that no postdoctoral position should require a candidate response prior to February 15 of each year. This policy applies to postdoctoral positions whose recruitment cycles follow the normal academic search timeline (offers in early spring to begin summer or fall of the same year). The text of this resolution is available on the [Council Resolution](#) webpage.

Employers should take this policy into account in their recruitment process.

**Frequency and Circulation**

The *Job Register* is published monthly. On the average, 60 new jobs are announced in each issue. Since the *Job Register* is freely available to anyone with Internet access, circulation numbers are hard to estimate. In February 2001, over 6,000 unique IP addresses accessed the *Job Register*.

[Job Register](#) webpages are published on the Career webpages and in the Annual Report of the Society in the *Bulletin of the American Astronomical Society*.

The *Job Register* is published on the Web at: <http://members.aas.org/JobReg/JobRegister.cfm>.

**Member Notification**

The AAS maintains a list of members that like to be notified when a New Job Register is posted. Members may be added to the *Job Register* email notice list by sending a message to [adrrcss@aaas.org](mailto:adrrcss@aaas.org).

**Recent Job Postings**

**Notes**

- Some jobs reposted from prior months may have closing dates during the current month. Readers should pay careful attention to the posted closing dates.
- Jobs marked as new were posted this month.

**No. 25349**

**Postdoctoral Fellow in Galaxy Evolution**

**THE UNIVERSITY OF SYDNEY**

Tel: (+61 2) 9351 2621

URL1: <http://positions.usyd.edu.au/astroomy2>

URL2: [www.physics.usyd.edu.au/sifa](http://www.physics.usyd.edu.au/sifa)

Email Submission Address: [jbh@physics.usyd.edu.au](mailto:jbh@physics.usyd.edu.au)

Email Inquiries: [gama@usyd.edu.au](mailto:gama@usyd.edu.au)

Attention: Professor Bland-Hawthorn

Postdoctoral Fellow in Galaxy Evolution Sydney Institute for Astronomy School of Physics Reference No. 145037

Applications are invited for a position as a Postdoctoral Fellow in the Sydney Institute for Astronomy (SIFA) at the University of Sydney, to carry out research on galaxy formation and evolution under the supervision of Prof. Joss Bland-Hawthorn (SIFA) and Prof. Andrew Hopkins (AAO). The successful applicant will participate in a new international collaboration called GAMA (Galaxy and Mass Assembly). The main area of focus will be the exploration of galaxy star formation rates, obscuration and morphologies as a function of galaxy mass and environment. GAMA aims to collect 250,000 galaxy spectra over 5 years complemented by new multiwavelength photometric data from UKIDSS, VST/KIDS, VISTA/VIKING, and HERSCHEL/ATLAS. The successful candidate will be invited to participate in ongoing observations, and will be encouraged to conduct their own independent research program.

SIFA comprises more than 70 staff and students, who conduct a diverse research program in observational astrophysics, theory and instrumentation. The group is engaged in cutting-edge instrumentation for the leading optical/IR telescopes, ELTs, JWST and SKA. We will soon be commissioning new OH suppression, hexabundles and tunable filter technologies with a focus on studying the highest redshift sources. The group makes active use of local, international and space-based facilities; for more information, see [www.physics.usyd.edu.au/sifa](http://www.physics.usyd.edu.au/sifa)

The University of Sydney is Australia's premier institute for higher learning, and occupies a beautiful 19th century campus in the heart of one of the world's great cities. Rated as having one of the highest standards of living in the world, Sydney offers warm weather, great food, and a vibrant and diverse cultural community.

This position is full-time, fixed term for three years, subject to the satisfactory completion of a probation period. Visa sponsorship will be provided to suitable overseas candidates.

Remuneration package: \$78k p.a. (which includes base salary \$66k, leave loading and 17% employer's contribution to superannuation).

For more information and to apply, please visit <http://positions.usyd.edu.au/astroomy2>

Potential applicants are encouraged to contact Professor Bland-Hawthorn by telephone on (+61 2) 9351 2621 or by email: [jbh@physics.usyd.edu.au](mailto:jbh@physics.usyd.edu.au) Enquiries regarding the recruitment process can be directed to

Fang Zhou by email [fangzhou.usyd.edu.au](mailto:fangzhou.usyd.edu.au)

Closing Date: 1 February 2009

No benefits information has been provided by the employer.

**No. 25391**

**Permanent Faculty Position in Theoretical Astrophysics**

**UNIVERSITY OF LEICESTER, UK**

University Road

Leicester, Leicestershire LE1 7RH

United Kingdom

Tel:

URL1: <http://www.le.ac.uk/personnel/jobs/A4014%20A4%20In%20In%20Theoretical%20Astrophysics.pdf> (Advert)

URL2: <http://www.le.ac.uk/personnel/jobs/A4014%20EP%20In%20In%20Theoretical%20Astrophysics.pdf> (Further particulars)

Attention: Personnel Services (3)

Applicants must have an excellent record of research achievement and have expertise that complements or enhances the current astronomy and astrophysics programme of the Department. They should also be able to demonstrate potential for research leadership and a commitment to high quality teaching.

Applicants should have a theoretically-based PhD in an appropriate discipline.

If you wish to apply, download an application form and further information form [www.le.ac.uk/personnel/jobs](http://www.le.ac.uk/personnel/jobs) or contact Personnel Services on recruitment3@le.ac.uk or 44 (0) 116 252 2438.

Closing date: 28 February 2009

No benefits information has been provided by the employer.

**No. 25400**

**Assistant Professor- Contractually Limited Term Appointment**

**UNIVERSITY OF TORONTO**

50 St. George Street

Toronto, ON M5S 3H4

Tel: 416-978-3150

FAX: 416-971-2026

URL1: <http://www.astro.utoronto.ca>

Email Submission Address: [cita@astro.utoronto.ca](mailto:cita@astro.utoronto.ca)

Email Inquiries: [cita@astro.utoronto.ca](mailto:cita@astro.utoronto.ca)

Attention: Prof. Peter Martin, FRS, Chair

The Department of Astronomy and Astrophysics in the Faculty of Arts and Science at the University of Toronto invites applicants for a full-time assistant professor, contractually limited position to commence 1 July 2009 or as soon as possible thereafter. Primary responsibilities will be undergraduate teaching, mentorship, and supervision, although teaching at the graduate level is a possibility; and carrying out independent research. Qualifications include a PhD, commitment to quality undergraduate education and experience; demonstrated potential for excellence in teaching; a productive independent research program. Potential applicants are invited to visit our web site at <http://www.astro.utoronto.ca>. The University of Toronto (<http://www.utoronto.ca>) offers the opportunity to teach, conduct research, and live in one of the most diverse cities in the world. This appointment is a contractually-limited term appointment for an initial period of one year, and could be extended for an additional two years upon a satisfactory performance review and availability of funds. Salary will be commensurate with the candidate's qualifications and academic accomplishments. Candidates should submit a curriculum vitae and a research plan. Applicants should also arrange for three letters of reference to be submitted directly to: Professor Peter Martin, FRS, Chair, Department of Astronomy and Astrophysics, University of Toronto, 50 St. George Street, Toronto, ON M5S 3H4 or via e-mail to [cita@astro.utoronto.ca](mailto:cita@astro.utoronto.ca)

We encourage you to submit your application online by clicking on the link below. If you are unable to apply online (or alternatively have large documents to send), please submit your application and other materials to the above address or via e-mail to [cita@astro.utoronto.ca](mailto:cita@astro.utoronto.ca).

To ensure full consideration in the search, all application materials, including the recommendation letters, must be received by 31 January 2009. Click link below to Apply Online

<http://www.jobs.utoronto.ca/faculty.htm>

The University of Toronto is strongly committed to diversity within its community and specially welcomes applications from visible minority group members, women, Aboriginal persons, persons with disabilities, members of sexual minority groups, and others who may contribute to the further diversification of ideas. All qualified candidates are encouraged to apply; however, Canadians and permanent Residents will be given priority.

No benefits information has been provided by the employer.

**No. 25418**

**Research Scientists --- stellar physics/hydrodynamics**

**ARGELANDER-INSTITUT FUER ASTRONOMIE**

Auf dem Huegel 71

Germany

Tel:

URL1: <http://www.astro.uni-honn.de/~webaiuh/english/index.nhn>

Email Submission Address: [edanne@astro.uni-honn.de](mailto:edanne@astro.uni-honn.de)

Email Inquiries: [edanne@astro.uni-honn.de](mailto:edanne@astro.uni-honn.de)

Attention: Ms Elisabeth Danne, Secretary (AIFA) Bonn invites applications for up to four positions as Research Scientist. The AIFA currently hosts about 80 scientific staff members, postdocs, fellows, and PhD students and constitutes, together with the neighboring Max-Planck-Institut fuer Radioastronomie, one of the major astronomical centers in Europe, with research activities in most contemporary fields of astrophysics. Applicants should have a Ph.D. in astronomy or a closely related field. The appointment will initially be for three years, with a possible extension for further two or three years. Successful applicants are expected to conduct frontline research in the fields of observational/theoretical stellar astrophysics and/or stellar/circumstellar hydrodynamics. Based in the newly established research group of Northern Germany, successful candidates are expected to interact with the PhD students and postdocs in that group, and will be supported to enhance their research activities through their own grant proposals to German and European funding agencies. An active role in the teaching curriculum of the AIFA can be considered. The positions are open to applications from all nationalities. Knowledge of the German language is not required. Interested candidates should send an application, together with a CV, a publication list, and a plan for their future research in form of a single pdf-file, and arrange for three reference letters to be sent to Ms Elisabeth Danne, edanne@astro.uni-bonn.de, before February 15, 2009. No benefits information has been provided by the employer.

**No. 25248 (New)**  
**Visiting Assistant Professor of Physics**  
**DENISON UNIVERSITY**

**Tel:**  
**URL1:** <http://www.denison.edu/physics/>  
**Attention:** <https://employment.denison.edu>

The Denison University Department of Physics and Astronomy invites applications for a two-year visiting assistant professor position, with possible continuation to a third year, beginning Fall 2009. A second, two-year position may also be available, pending approval. We seek candidates who are highly interested in teaching physics and/or astronomy at both the beginning and advanced levels. Ph.D. degree in Physics preferred, but ABD may also be considered. Teaching experience is preferred. Denison University is a highly selective national liberal arts college of 2100 students, located in Granville, Ohio, 30 minutes from Columbus, Ohio. The department consists of six faculty, a technical assistant, and a secretary. Facilities include excellent equipment for both teaching and research, first class on-site experimental labs, a link to the Ohio Supercomputer, an observatory, a planetarium, and a well-equipped machine shop. Additional information may be obtained from our web site at <http://www.denison.edu/physics/>. Applicants should submit vita, undergraduate and graduate school transcripts, a description of teaching interests and experience, and three (3) letters of reference online at <https://employment.denison.edu>. Applications complete by 5 January, 2009, will receive full consideration; applications may be accepted until the position is filled. Denison's commitment to foster a diverse community is central to our liberal arts mission, therefore candidates from traditionally underrepresented groups are strongly encouraged to apply. Denison is an Affirmative Action, Equal Opportunity Employer.

**No. 25250 (New)**  
**Academic Director / Assoc. Dir.**  
**SUMMER SCIENCE PROGRAM**

**Tel:** (812) 855-2400  
**URL1:** [www.summerscience.org/jobs](http://www.summerscience.org/jobs)  
**Email Submission Address:** [jomsc@astro.indiana.edu](mailto:jomsc@astro.indiana.edu)  
**Email Inquiries:** [jomsc@astro.indiana.edu](mailto:jomsc@astro.indiana.edu)

**Attention:** Dr. Tom Steimann-Cameron, SSP Faculty Search Chair

No ordinary summer job... The Summer Science Program is a unique and unusually rewarding opportunity to teach and mentor some of the most promising young scientists in the world. SSP seeks an Associate Academic Director and Teaching Assistants for this intensive, six-week residential program for academically gifted high school students (rising seniors). Since 1989, many alumni have cited SSP as a major turning point in their lives, and gone on to prominent careers in astronomy and other sciences. On each of two campuses - Ojai, California, and New Mexico Tech in Socorro - two faculty deliver university-level lectures in astronomy, calculus, physics (with emphasis on orbital dynamics), and programming (in VPython), teaching students to perform an asteroid orbit determination from first principles using their own observations and calculations. Field trips and guest speakers round out the curriculum. See [www.summerscience.org](http://www.summerscience.org). Candidates for lecturing faculty should have a strong interest in science education, demonstrated teaching ability, enthusiasm, and energy. A PhD in a physical science, and experience in observational astronomy and teaching gifted high school students, are preferred but not required. Teaching Assistant positions are open to graduate students and upperclass undergraduates. All faculty receive salary, housing, meals, and travel reimbursement. 2009 employment dates are June 9 - July 26 (New Mexico Tech) and June 16 - Aug. 2 (CA). Some planning time during the winter and spring will be required as well. The Summer Science Program is an equal opportunity employer. We value a diverse faculty and encourage all qualified individuals to apply.

**No. 25263 (New)**  
**Faculty positions and visiting professor positions in cosmology and astrophysics theory; astronomy and observational cosmology**  
**INSTITUTE FOR THE PHYSICS AND MATHEMATICS OF THE UNIVERSE**

**Institute for the Physics and Mathematics of the Universe**  
**5-1-5 Kashiwa-no-ha**  
**Kashiwa City, Chiba 277-8568 277-8568**  
**Japan**

**Tel:** +81-4-7136-5954  
**FAX:** +81-4-7136-4941  
**URL1:** <http://www.ipmu.jp> (IPMU homepage)  
**URL2:** <http://www.ipmu.jp/info/Job.html#scientificstaffs> (Job ad page)  
**Email Submission Address:** [hitoshi.nurayama@ipmu.jp](mailto:hitoshi.nurayama@ipmu.jp)  
**Email Inquiries:** [hitoshi.nurayama@ipmu.jp](mailto:hitoshi.nurayama@ipmu.jp)

**Attention:** Postdoc Selection Committee, Kenzo Nakamura

The "Institute for the Physics and Mathematics of the Universe" (IPMU) is a new international research institute with English as its official language. It celebrated its first anniversary this October. The goal of the institute is to discover the fundamental laws of nature and to understand the universe from the synergistic perspectives of mathematics, statistics, theoretical and experimental physics, and astronomy. We are particularly interested in candidates with broad interests to interact with people from other subfields. We intend to appoint ten to twenty visiting professors to 5-year terms as well as a few associate and full professors to 8-year terms, all of which have a possible extension for five more years contingent on funding. We also intend to appoint ten to twenty visiting professors to one month to one year periods. We seek to build a diverse, highly interactive membership, and strongly encourage female and international applicants. The initial focus of IPMU includes but is not limited to: all areas of mathematics (e.g. algebra, geometry, analysis, and statistics); string theory and mathematical physics; particle theory, collider phenomenology, beyond the standard model physics phenomenology, cosmology and astrophysics theory; astronomy and observational cosmology; and underground experiments. We are leading efforts on the XMASS dark matter experiment, the HyperSuprimeCam project for weak lensing surveys at the Subaru telescope, GADZOOKS! at Super-Kamiokande, the Xe-based double beta-decay search in KamLAND, and R&D for future large neutrino detectors. IPMU is a full institutional member in SDS5-III. The applications should include a CV, research statement, publication list, and at least three letters of recommendation. They should be uploaded at <http://www.ipmu.jp/info/Job.html#scientificstaffs>. The search is open until filled, but for full considerations please submit the applications and letters by Dec 1, 2008.

**No. 25277 (New)**  
**Faculty positions/visiting professor positions in cosmology and astrophysics**  
**INSTITUTE FOR THE PHYSICS AND MATHEMATICS OF THE UNIVERSE**

**Institute for the Physics and Mathematics of the Universe**  
**5-1-5 Kashiwa-no-ha**  
**Kashiwa City, Chiba 277-8568 277-8568**  
**Japan**

**Tel:** +81-4-7136-5954  
**FAX:** +81-4-7136-4941  
**URL1:** <http://www.ipmu.jp> (IPMU homepage)  
**URL2:** <http://www.ipmu.jp/info/Job.html#scientificstaffs> (Job ad page)  
**Email Submission Address:** [hitoshi.nurayama@ipmu.jp](mailto:hitoshi.nurayama@ipmu.jp)  
**Email Inquiries:** [hitoshi.nurayama@ipmu.jp](mailto:hitoshi.nurayama@ipmu.jp)

**Attention:** Postdoc Selection Committee, Kenzo Nakamura

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**No. 25293 (New)**  
**FIXED TERM FACULTY POSITION - INSTRUCTIONAL**  
**PENN STATE UNIVERSITY**

**Dept. of Astronomy & Astrophysics**  
**525 Davey Lab**  
**University Park, PA 16802**  
**USA**

**Tel:** 814 865 0418  
**FAX:** 814 863 2842  
**URL1:** <http://www.astro.psu.edu>  
**Email Submission Address:** [ecleary@astro.psu.edu](mailto:ecleary@astro.psu.edu)  
**Email Inquiries:** [ecleary@astro.psu.edu](mailto:ecleary@astro.psu.edu)

**Attention:** Erin Eckley, Staff Assistant  
**FIXED TERM FACULTY POSITION** The Pennsylvania State University Dept. of Astronomy & Astrophysics 525 Davey Lab University Park, PA 16802 Attn: Faculty Search Committee

The Department of Astronomy and Astrophysics at the Pennsylvania State University invites applications for a fixed term instructional faculty. This position could start as early as mid May 2009 but in no case later than 15 August 2009. This is a full-time position. Duties will include responsibility for sections of introductory general education courses delivered in both traditional lecture and on-line formats. Applicants should have a Ph.D. in Astronomy or Physics. Some experience in teaching introductory level courses is highly desirable. We expect the appointment will be made as the Lecturer level. The selected candidate will be encouraged to participate in the vibrant research and outreach atmosphere in the department. The Department currently track faculty and over 20 postdoctoral associates and research faculty. The Department is consistently ranked among the top in the country in introductory student enrollments by the AIP. The Department is the main University partner in the multi-wavelength SWIFT gamma-ray burst afterglow satellite, whose Mission Operations Center is at Penn State. It is also the PI institution for the ACIS X-ray CCD camera on Chandra, and is a major partner (25% of the observing time) in the Hobby-Eberly Telescope at the McDonald Observatory. Current information teaching, research and other activities can be found at <http://www.astro.psu.edu>. Applications should include a CV, statement of teaching experience and interest as well as research interests, list of publications, and names of three professional references, mailed to: Ms. Erin Eckley, (ecleary@astro.psu.edu), 525 Davey Lab, The Pennsylvania State University, University Park, PA 16802, Fax: 814-863-2842; phone: 814-865-0418. Review of applications will begin in October, and the search will continue until the position is filled. We encourage applications from individuals of diverse backgrounds. Penn State is committed to affirmative action, equal opportunity and the diversity of its workforce.

**No. 25348**  
**Postdoctoral Fellow in Near Field Cosmology**  
**THE UNIVERSITY OF SYDNEY**

**Australia**  
**Tel:** (+61 2) 9351 2621  
**URL1:** <http://positions.usyd.edu.au/astroonomy1>  
**URL2:** [www.physics.usyd.edu.au/sifa](http://www.physics.usyd.edu.au/sifa)  
**Email Submission Address:** [jbh@physics.usyd.edu.au](mailto:jbh@physics.usyd.edu.au)  
**Email Inquiries:** [jbh@physics.usyd.edu.au](mailto:jbh@physics.usyd.edu.au)

**Attention:** Professor Bland-Hawthorn  
**Postdoctoral Fellow in Near Field Cosmology** Sydney Institute for Astronomy School of Physics Reference No. 145021

Applications are invited for a position as a Postdoctoral Fellow in the Sydney Institute for Astronomy (SIFA) at the University of Sydney, to carry out research on galactic archaeology under the supervision of Prof. Ross Bland-Hawthorn. The successful applicant will participate in the new million-star HERMES project that starts at the AAT in 2011. HERMES is a high resolution spectrograph (R=30,000) that will observe 400 stars at a time over a 2-degree field to obtain chemical information in 7 independent element groups. HERMES aims to collect 1.5 million stellar spectra over 5 years. All stars will have SIFA comprises more than 70 staff and students, who conduct a diverse research program in observational astrophysics, theory and instrumentation. The group is engaged in cutting-edge instrumentation for the leading optical/IR telescopes, ELTs, JWST and SKA. We will soon be commissioning new OH suppression, hexabundles and tunable filter technologies with a focus on studying the highest redshift sources. The group makes active use of local, international and space-based facilities; for more information, see [www.physics.usyd.edu.au/sifa/](http://www.physics.usyd.edu.au/sifa/). The University of Sydney is Australia's premier institute for higher learning, and occupies a beautiful 19th century campus in the heart of one of the world's great cities. Rated as having one of the highest standards of living in the world, Sydney offers warm weather, great food, and a vibrant and diverse cultural community. This position is full-time, fixed term for two years, subject to the satisfactory completion of a probation period, with a possible extension subject to funding. Visa sponsorship will be provided to suitable overseas candidates. Remuneration package: \$78k p.a. (which includes base salary \$66k, leave loading and 17% employer's contribution to superannation). For more information and to apply, please visit <http://positions.usyd.edu.au/astroonomy1>. Potential applicants are encouraged to contact Professor Bland-Hawthorn by telephone on (+61 2) 9351 2621 or by email: [jbh@physics.usyd.edu.au](mailto:jbh@physics.usyd.edu.au) Enquiries regarding the recruitment process can be directed to Fang Zhou by email: [fangz@usyd.edu.au](mailto:fangz@usyd.edu.au). Closing Date: 1 February 2009. No benefits information has been provided by the employer.

**No. 25354**  
**Cosmology and Quantum Information Tenure and Tenure Track Faculty Positions**  
**PERIMETER INSTITUTE FOR THEORETICAL PHYSICS**

**Tel:**  
**URL1:** [www.perimeterinstitute.ca](http://www.perimeterinstitute.ca)  
**Email Submission Address:** [facultyrecruitment@perimeterinstitute.ca](mailto:facultyrecruitment@perimeterinstitute.ca)  
**Attention:** Debbie Guenther

Perimeter Institute for Theoretical Physics encourages scientists working in foundational areas of theoretical physics to apply for tenure-track/tenure faculty positions. Perimeter Institute is currently specifically seeking to fill positions at the junior and senior levels in Cosmology and Quantum Information. The deadline to apply for these positions is February 15, 2009. The Institute also welcomes applications from exceptional candidates in String Theory, Quantum Gravity, Quantum Foundations, Particle Physics, Condensed Matter Physics and Mathematical Physics. Applications will be considered until all positions have been filled. For complete application details and information about research opportunities at Perimeter Institute, please visit: [www.perimeterinstitute.ca](http://www.perimeterinstitute.ca). All qualified candidates are encouraged to apply; however Canadian citizens and Permanent Residents will be given priority. Perimeter Institute encourages applications from all qualified individuals, including women,

members of visible minorities, native peoples and persons with disabilities.  
Competitive salaries are supplemented with fully paid and extensive health, dental, life, disability, and travel health insurance.

**No. 25370**  
**W2-Professorship in Theoretical Astrophysics (Tenure Track)**  
**LUWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN**  
**Schellingstr. 4**  
**Germany**  
**Tel:**  
**Attention: Dekan der Fakultät fuer Physik**  
The Ludwig-Maximilians-Universität München solicits applications for a W2-Professorship in Theoretical Astrophysics (Tenure Track) in the area of Physics and Chemical Enrichment of the Interstellar Medium, Star- and Planet Formation.  
Within the framework of the German Excellence Initiative, the Excellence Cluster "Origin and Structure of the Universe" has been established in cooperation with the Technische Universität München, the Max-Planck-Institut für Astrophysik, Extraterrestrial Physics and the European Southern Observatory. Within Research Area G "Heavy Elements and Chemical Enrichment" of the Excellence-Cluster, the successful candidate will be able to establish and lead an independent research group.  
The successful applicant is expected to start a strong theoretical research program with focus on topics related to the physics and chemical enrichment of the interstellar medium, star- and/or planet formation. He/she should actively participate in the activities of the Excellence Cluster and the teaching program in Astrophysics. Collaboration with other theoretical and observational research groups in the Garching/Munich area as well as an interest in theoretical interpretation of observational results is very welcomed and encouraged.  
Advancement of women in this field is an important policy goal both for the Excellence Cluster and for the participating universities and institutes. Therefore, qualified women are especially encouraged to apply. Part time employment is possible. Preference will be given to disabled persons with the same qualifications.  
Information on the activities of the Excellence Cluster can be found at <http://www.univser-cluster.de/>. For detailed inquiries, please contact Prof. Andreas Burkert ([burkert@usm.lmu.de](mailto:burkert@usm.lmu.de)) or Prof. Ralf Bender ([bender@usm.lmu.de](mailto:bender@usm.lmu.de)).  
Informative application documents, academic records, list of publications and invited lectures as well as a summary of planned research activities should be submitted before February, 28th 2009 to the Dekan der Fakultät fuer Physik Ludwig-Maximilians-Universität Schellingstr. 4 80799 München Germany  
No benefits information has been provided by the employer.

**No. 25373**  
**Tenure-track faculty position in Astronomy (Exoplanets)**  
**LUND OBSERVATORY**  
**Lund University**  
**Box 117**  
**Sweden**  
**Tel:**  
**URL1: <http://www.astron.lu.se> (full announcement text)**  
**URL2: <http://www.naturvetenskap.lu.se/p.o.14/11773> (application instructions)**  
**URL3: <http://www.astron.lu.se/Research/> (research at Lund Observatory)**  
**Email Inquiries: [lennart@astron.lu.se](mailto:lennart@astron.lu.se)**  
**Attention: Ref. No. 4298, Faculty of Science**  
Lund Observatory invites applications for a tenure-track faculty position in Astronomy, with specialisation in exoplanets. The appointment is initially limited to four years, but can be made permanent following an evaluation procedure. The official Swedish title of the position is Associate senior lecturer.  
Lund Observatory is the Astronomy Department of Lund University, located in southern Sweden and one of the largest universities in Scandinavia.  
We seek excellent candidates to carry out research, undergraduate teaching and supervision of PhD students, with a focus in the general area of exoplanets. Research can be theoretical or observational. Relevant areas include, for example: methods to detect and characterize extrasolar planets and planetary systems, observations of such systems, and theoretical studies of the their formation and evolution. Undergraduate and advanced teaching (up to above) could concern these and related areas, such as astrophysics and the exploration of the solar system. Teaching could be in English or Swedish.  
Candidates should have completed a PhD degree or have corresponding scientific competence in a relevant subject area. Priority will be given to candidates who have completed their PhD not more than five years before the application deadline, not counting parental leave and similar.  
See URL1 above for the full announcement text, URL2 for instructions how to apply, and URL3 for general information about research at Lund Observatory. For inquiries, please contact Prof. Lennart Lindgren ([lennart@astron.lu.se](mailto:lennart@astron.lu.se)).  
The University strives to achieve an even gender balance and especially encourages applications from women for this position.  
No benefits information has been provided by the employer.

**No. 25397**  
**Tenure Track Position in Cosmology**  
**BROOKHAVEN NATIONAL LABORATORY**  
**Tel:**  
**URL1: [www.bnl.gov](http://www.bnl.gov)**  
**Attention: Dr. Thomas Ludlam**  
The Department of Physics at Brookhaven National Laboratory invites applications for a tenure-track position in astrophysics/cosmology with the level of individual appointment determined by the qualifications of the applicant. Brookhaven has a long tradition of strength in particle and nuclear physics resulting in a world-class intellectual environment. A strong program in cosmology focusing on the exploration of dark energy and other related fundamental physical phenomena is being developed, and will complement the current research. The program will include near-term cosmology projects, as well as the Large Synoptic Survey Telescope (LSST). The set of three planned new hires was made in Spring 2008. Brookhaven is a member of the LSST collaboration and is the center for developing the CD array for the telescope. The Laboratory has extensive large-scale computing and technical resources.  
We seek candidates of exceptional ability with a record of independent research and accomplishment and the potential for scientific leadership. The successful candidate's research program could be in the analysis of astronomical data, significant results, optical and/or near-infrared observational techniques for cosmology, or in other areas germane to large-scale cosmological surveys.  
Applications should be received by February 1, 2009 or sooner to be given fullest consideration. However, applications will be accepted until the position is filled. The appointment will begin in September 2009, or sooner. Interested applicants should send a letter (pdf format), curriculum vita, publication list, and a brief description of research interests (proposed research). Applicants should also include at least three references, including email addresses, at the bottom of their CV. Candidates must have a Ph.D. or equivalent degree in physics or astronomy. Brookhaven is an equal opportunity employer committed to workforce diversity.  
Please apply for this position at <http://www.bnl.gov>, click on Job Opportunities and then Search Job List and apply to Job ID #14331.  
No benefits information has been provided by the employer.

**No. 25408**  
**Adaptive Optics Specialist Operations Staff Astronomer**  
**ESO - EUROPEAN ORGANISATION FOR ASTRONOMICAL RESEARCH IN THE SOUTHERN HEMISPHERE**  
**Karl-Schwarzschild-Str. 2**  
**Garching near Munich, Bavaria 85748**  
**Germany**  
**Tel: +49 89 3200 6665**  
**FAX: +49 89 3200 6497**  
**URL1: <https://jobs.eso.org/ESOC370/documents/DOC000188.PDF>**  
**Email Submission Address: [vacancy@eso.org](mailto:vacancy@eso.org)**  
**Email Inquiries: [vacancy@eso.org](mailto:vacancy@eso.org)**  
**Attention: [vacancy@eso.org](mailto:vacancy@eso.org), Human Resources**  
The Paranal Operations Staff Astronomer will contribute to the challenge of operating the world leading astronomical facility with the clear objective to optimize its scientific output. As Adaptive Optics (AO) specialist, s/he will have the opportunity to provide expert knowledge on novel AO instrumentation, and may be given the overall operational responsibility of one or several AO systems at the Very Large Telescope (VLT). Flexibility exists so as to tailor duties and responsibilities according to personal expertise and interests.  
As part of the operations team, the successful candidate will: • Contribute to the observing support in both visitor and service mode at the La Silla Paranal Observatory, with duty station on Paranal, including short-term scheduling of observations, calibration of instruments and the assessment of the scientific quality of the astronomical data. • Work in collaboration with the teams operating the seven AO-equipped instruments currently on the mountain: NACO (general Shack-Hartmann-based spectro-imager with polarimetric and coronagraphic capabilities), SINFONI (AO integral field spectrograph), CRRES (AO-fed high-resolution spectrograph), the four MACAO units (curvature sensing) feeding the Very Large Telescope Interferometer (VLTI), as well as the Laser Guide Star System used in combination with NACO and SINFONI, to improve their operations and scientific performances. • Prepare the VLT operations-readiness of the future AO instruments (SPHERE, MuSE) and Adaptive Optics Facility systems.  
S/he will be expected and encouraged to actively conduct astronomical research. Up to 105 nights per year are spent at the Observatory carrying out functional duties. The rest of the time is spent in the ESO office in Santiago. Financial support for scientific trips and stays at other institutions, including in Europe, is foreseen for all Paranal Operations Astronomers.  
We are seeking a staff astronomer with substantial observing experience (at least three years). The ideal candidate will be an active researcher and have excellent observation-oriented research records, will be familiar with instrumental, data analysis, archiving and/or observational techniques, and must be conversant with at least one major data reduction package such as MIDAS, IRAF or IDL.  
Of critical value for this position is a record of experience in Adaptive Optics, either at the level of instrumentation, data processing, calibration, possibly in conjunction with Laser Guide Star operations.  
The ideal candidate will have a proven ability to identify technical issues and potential risks and demonstrated experience with real-time troubleshooting. Very good self-organization and time management, coupled with the ability to prioritize multiple tasks are a must.  
No benefits information has been provided by the employer.

**No. 25420**  
**James Webb Space Telescope Associate Project Scientist for Integration and Test**  
**NASA'S GODDARD SPACE FLIGHT CENTER**  
**B21, R114**  
**Greenbelt, MD 20771**  
**USA**  
**Tel: 301-286-3938**  
**FAX: 301-286-7153**  
**URL1: <http://jwst.gsfc.nasa.gov/>**  
**URL2: <http://astrophysics.gsfc.nasa.gov/cosmology/>**  
**URL3: <http://www.eso.org/links/content/142374012vk30qpw5/fulltext.pdf>**  
**Email Submission Address: [jonathan.p.gardner@nasa.gov](mailto:jonathan.p.gardner@nasa.gov)**  
**Email Inquiries: [jonathan.p.gardner@nasa.gov](mailto:jonathan.p.gardner@nasa.gov)**  
**Attention: Jonathan P. Gardner, Chief, Observational Cosmology Lab**  
The Observational Cosmology Laboratory of NASA's Goddard Space Flight Center invites applications for a civil service astrophysics position in astronomical instrumentation. The successful candidate will join the James Webb Space Telescope (JWST) project science team as the Associate Project Scientist for Assembly, Integration, Test and Commissioning of the observatory. JWST, scheduled for launch in 2013, is the successor to the Hubble and Spitzer Space Telescopes, and will be a large (6.5m), cold (50K), facility-class space observatory operating in the visible to mid-infrared wavelength range, 0.6 to 28.5 microns. The science goals of JWST cover a wide range from Solar-System objects to the first galaxies to form in the early Universe. Additional information about JWST is available through the website <http://www.jwst.nasa.gov/> and from the review paper Gardner et al 2006, Space Sci. Rev. 123, 485 (astro-ph/0606175).  
The successful candidate will work with the JWST science, management and engineering teams validating the scientific and engineering requirements, reviewing the thermal design of the observatory, reviewing the plans for assembly, integration and test of the Integrated Science Instrument Module, the Optical Telescope Element and the observatory, reviewing and interpreting test results, reviewing plans for observatory commissioning, conducting scientific trade studies of alternative solutions to problems, participating in project meetings, and reporting regularly to the JWST Senior Project Scientist and through him to the Science Working Group. It is expected that the incumbent will carry out a program of scientific research relevant to the JWST science objectives.  
Desired qualifications include a PhD degree, a scientific publication record in astronomy and/or astronomical instrumentation and experience working with cryogenic space-flight mission hardware. The appointment is initially for a two-year term and there is an expectation that it will become permanent subject to positive evaluation and available funding. It is expected that the appointment will be made at the GS-14 or GS-15 level.  
Letters of interest, including a CV, list of publications and a statement of scientific interests, plus 3 letters of reference should be sent to Jonathan P. Gardner, NASA's GSFC, Code 665, Bldg 21, Room 114, Greenbelt, MD 20771; [jonathan.p.gardner@nasa.gov](mailto:jonathan.p.gardner@nasa.gov); phone: 301-286-3938. Additional application materials will be required. Applications will be considered starting in January 2009 and will continue until a suitable candidate has been identified. The successful candidate will be in the formal employ of the National Aeronautics and Space Administration, a branch of the U.S. Government, at a salary scale commensurate with education and experience. NASA is an Equal Employment Opportunity employer and a diversity of candidates is sought. U.S. citizenship is required.  
This U.S. government civil service position includes a generous package of benefits. Information on salary, health insurance and retirement benefits is available from the Office of Personnel Management website: <http://www.opm.gov/>

**No. 25423**  
**Assistant Professor, Theoretical Astrophysics**  
**THE UNIVERSITY OF MANITOBA**  
**Department of Physics and Astronomy**  
**Winnipeg, Manitoba R3T 2N2**  
**Canada**  
**Tel:**  
**URL1: <http://www.physics.umanitoba.ca> (Please quote position 09192.)**  
**Email Submission Address: [blunden@physics.umanitoba.ca](mailto:blunden@physics.umanitoba.ca)**  
**Email Inquiries: [blunden@physics.umanitoba.ca](mailto:blunden@physics.umanitoba.ca)**  
**Attention: Dr. Peter Blunden**  
Assistant Professor, Theoretical Astrophysics  
The Department of Physics and Astronomy at the University of Manitoba invites applications for a tenure-track Assistant Professor position in theoretical/computational astrophysics, beginning July 1, 2009 or as soon as possible thereafter. We seek outstanding individuals who will complement and expand current research areas which include the study of formation and evolution of galaxies, supernova remnants, neutron stars, magnetars, pulsar wind nebulae, star formation, and gravitational lensing. Candidates should have a strong record of achievement in astrophysics research, and a commitment to excellence in undergraduate and graduate teaching in physics and astronomy. Applicants should send curriculum vitae, a list of publications, a summary of past accomplishments and future research plans, and the names of three referees to: Dr. Peter Blunden ([blunden@physics.umanitoba.ca](mailto:blunden@physics.umanitoba.ca)), Department of Physics and Astronomy, University of Manitoba, Winnipeg, MB R3T 2N2, Canada. Further information is available at <http://www.physics.umanitoba.ca>. Please quote position 09192.  
The University of Manitoba encourages applications from qualified women and men, including members of visible minorities, Aboriginal peoples, and persons with disabilities. All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority. Review of applications will begin March 1, 2009, and will continue until the position is filled. This position is subject to final budgetary approval. Application materials, including letters of reference, will be handled in accordance with Freedom of Information and Protection of Privacy Act (Manitoba).  
No benefits information has been provided by the employer.

**No. 25427 (New)**  
**Faculty Position in Computational Physics California State University Los Angeles**  
**CALIFORNIA STATE UNIVERSITY LOS ANGELES PHYSICS AND ASTRONOMY**  
**5151 State University Drive**  
**Los Angeles, CA 90032-8206**  
**USA**  
**Tel: 323-343-2100**  
**Email Inquiries: [abucupo@calstatela.edu](mailto:abucupo@calstatela.edu)**  
**Attention: Marie Bruno, Department Coordinator**  
The Department of Physics and Astronomy invites applications for a tenure-track position in computational physics at the rank of assistant professor starting September 2009. The successful candidate must have a Ph. D. in physics or related fields and is expected to establish a strong research program, seek external funding in computational physics, and involve both undergraduate and masters level students in research. In

In addition, the candidate must have a strong interest in teaching both beginning and advanced physics and developing computational physics courses. The Department conducts research in Astronomy, Astrophysics and Cosmology, Nuclear and Particle Physics, and Condensed Matter Physics. Experience in any of these fields is desirable. Candidates should submit a cover letter, curriculum vitae, statements of research and teaching interests and arrange to have three letters of recommendation sent separately. Applications should be sent to: Chair of Computational Physics Search Committee, c/o Marie Bruno, Department of Physics and Astronomy, California State University Los Angeles, 5151 State University Drive, LA, CA 90032  
No benefits information has been provided by the employer.

**No. 25430**  
**Tenure-Track Faculty Position In Astronomy/Astrophysics**  
**COLLEGE OF STATEN ISLAND, CITY UNIVERSITY OF NEW YORK**  
**Dept of Engineering Science and Physics**  
**2600 Victory Blvd, Bldg. 1N, Room 225**  
**Staten Island, NY 10314**  
**USA**  
**Tel: 718-982-2817**  
**FAX: 718-982-2830**  
**URL1: <http://www.apsc.csi.cuny.edu/csiengdp/startpg/index.html>**  
**URL2: <http://www.apsc.csi.cuny.edu/csiengdp/rschpgs/astrophy/astrophy.html>**  
**URL3: <http://www.csi.cuny.edu/cunyhp/>**  
**Email Submission Address: [clj@mail.csi.cuny.edu](mailto:clj@mail.csi.cuny.edu)**  
**Email Inquiries: [clj@mail.csi.cuny.edu](mailto:clj@mail.csi.cuny.edu)**

**Attention: Professor Charles Liu, Chair, Astrophysics Search Committee**  
The City University of New York's College of Staten Island (CUNY/CSI) invites applications for a tenure-track faculty position in astrophysics. The astronomy/astrophysics group at the College resides within the Department of Engineering Science and Physics, and is currently primarily engaged in extragalactic observational research via national and international collaborations, as well as asteroid astronomy with a dedicated 16-inch telescope located on the College's 204-acre campus. We seek an outstanding individual to complement and extend the research and educational efforts of the group. Special emphasis will be placed on experience and capability in computational astrophysics. The successful candidate will have a strong record of astrophysical research and demonstrated enthusiasm for excellent teaching from general-education astronomy to doctoral graduate courses. We are particularly interested in candidates with the expertise and research plan to utilize CUNY/CSI's new high performance computational facility (for details please visit <http://www.csi.cuny.edu/cunyhp/>). Strong candidates in all research specialties, however, will receive full consideration. Interested applicants should send their curriculum vitae, list of publications, research statement, and teaching statement, and should arrange for three letters of reference to be sent to Charles Liu (Chair of the search committee) by email [clj@mail.csi.cuny.edu](mailto:clj@mail.csi.cuny.edu) or by mail to the address above. Review of applications will begin in January 2009; later applications may be considered until the position is filled. Women and members of underserved and minority populations are especially encouraged to apply.  
The full package of benefits for full-time employees of New York State is included; this includes, and is not limited to, medical and dental insurance, maternity leave, and retirement benefits. The City University of New York has a unionized faculty, so membership benefits of the Professional Staff Congress (PSC-CUNY) are also included.

**No. 25221 (New)**  
**Two tenure-track professorial positions in theoretical or computational astrophysics or relativity**  
**CALIFORNIA INSTITUTE OF TECHNOLOGY**  
**1200 E. California Blvd**  
**Pasadena, CA 91127-0001**  
**USA**  
**Tel:**  
**URL1: <http://www.pma.caltech.edu/physics-search> (Application submission)**  
**URL2: <http://www.pma.caltech.edu/physics-search/ref/> (Reference letter submission)**  
**Email Inquiries: [physics-search@caltech.edu](mailto:physics-search@caltech.edu)**

**Attention: Physics Professorial Search**  
The Division of Physics, Mathematics and Astronomy at the California Institute of Technology invites applications for two tenure-track professorial positions in theoretical or computational astrophysics or relativity. We are primarily interested in candidates for tenure-track appointments, but will consider applications for more senior positions as well. We are considering applications in all areas of theoretical and computational astrophysics and relativity, though because of recent appointments in CMB and early-universe cosmology, we are not targeting these areas at this time. Fields of interest include, but are not limited to: high-energy astrophysics, numerical relativity, compact objects, accretion, stellar formation, evolution and explosions, dynamics, galaxy and AGN formation and coevolution. An exceptional array of observational facilities are headquartered at Caltech and value interactions with theorists: LIGO Lab, Keck and Palomar Observatories, Spitzer Science Center, IPAC, Michelson Science Center, CARMA and OVRG, GALEX, NuSTAR, Caltech Submillimeter Observatory, Thirty Meter Telescope project. Large-scale computing is supported through Caltech's Center for Advanced Computing Research and joint programs with the JPL Supercomputing and Visualization Facility.  
We are seeking highly qualified candidates committed to a career in research and teaching. Applications should include a curriculum vitae, a list of papers published and submitted (with refereed papers indicated), a brief essay describing the applicant's research interests and the program of research he/she proposes to carry out at Caltech. Applicants are also requested to have at least three letters of reference uploaded to <http://www.pma.caltech.edu/physics-search/ref/>. The names and email addresses of the referees should be included in the application. Application materials must be submitted electronically as a single file in editable pdf format (not password protected) at <http://www.pma.caltech.edu/physics-search/>. In the research interests section of the application page, please click the "Astrophysics (theoretical and computational including numerical relativity)" button.  
Consideration of applications will continue until the position is filled or until June 30, 2009.  
Caltech is an Equal Opportunity/Affirmative Action employer. Women, minorities, veterans, and disabled persons are encouraged to apply.

**No. 25227 (New)**  
**Faculty Positions in Instrumentation, Observation, Or Theory**  
**INSTITUTE OF ASTRONOMY AND ASTROPHYSICS, ACADEMIA SINICA**  
**PO Box 23-141**  
**Taipei, Taiwan 106**  
**ROC**  
**Tel: +886-2-3365200**  
**FAX: +886-2-2377649**  
**URL1: <https://www.asiaa.sinica.edu.tw/jobopening/ard.php?i=6d1f5aaad1ef138d89ba79c1c3241b72> (On-Line Submission)**  
**URL2: <http://www.asiaa.sinica.edu.tw/> (ASIAA)**  
**URL3: <http://www.asiaa.sinica.edu.tw/AcademiaSinica>**  
**Email Inquiries: [asiaa@asiaa.sinica.edu.tw](mailto:asiaa@asiaa.sinica.edu.tw)**

**Attention: Dr. Paul Ho, Director**  
The Academia Sinica Institute of Astronomy and Astrophysics (ASIAA) has openings for faculty positions at the assistant, associate, and full research fellow levels. Candidates who work in Optical/IR/Radio Astronomy, Theoretical/Computational Astrophysics, or Instrumentation (Optical/IR/Submillimeter) are especially encouraged to apply. Applicants should hold a Ph.D. degree in astronomy/astrophysics, physics, or engineering, and preferably have prior postdoctoral experience.  
ASIAA is an institute of Academia Sinica, the national research organization in Taiwan. The institute has approximately 155 staff members (including 33 Faculty, 7 visiting scholars, 24 Postdocs, 27 Engineers/Technicians, and 33 Graduate Students). Research includes the Solar System, Star Formation, Stellar Evolution, Interstellar Chemistry, Nearby and Distant Galaxies, as well as Cosmology. We have a strong instrumentation team involved in a number of international projects in both Optical/IR and Radio (sub-mm).  
ASIAA offers exciting research opportunities in international environment, where English is the working language. The department currently is developing programs in extrasolar system planets, debris disks, and the search for life-bearing planets. Applications from candidates whose astronomical research is synergistic with these areas are particularly welcome. As a UCLA faculty member, the successful candidate will have direct access to the Keck and Lick Observatories. Candidates should submit a curriculum vitae, statement of research interests, publication list, and arrange to have at least three letters of recommendation sent to: Office of the Chair Attn: Astronomy Search Committee UCLA Department of Physics and Astronomy 473 Portola Plaza, Rm. 2-107 PAB Box 951547 Los Angeles, CA 90095-1547  
We seek candidates who can lead the Institute's research programs, or initiate entirely new forefront programs. More information on target areas of recruitment can be found at <https://www.asiaa.sinica.edu.tw/jobopening/>  
Applicants should submit a curriculum vitae, a summary of past research (or instrumentation experience), and a plan for future research, on-line at <http://www.asiaa.sinica.edu.tw/jobopening/>. Applicants should also arrange three letters of recommendation to Dr. Paul Ho, at the above address or email submission to [asiaa@asiaa.sinica.edu.tw](mailto:asiaa@asiaa.sinica.edu.tw). Applications received by or on 31 January 2009 will receive full consideration.

**No. 25291 (New)**  
**Faculty Position in Experimental Astrophysics and Astronomy**  
**UNIVERSITY OF CALIFORNIA, LOS ANGELES**  
**475 Portola Plaza, Rm. 2-707 PAB**  
**Box 951547**  
**Los Angeles, CA 90095-1547**  
**USA**  
**Tel: 310-825-3440**  
**FAX: 310-206-0864**  
**URL1: [http://home.physics.ucla.edu/faculty\\_index.html](http://home.physics.ucla.edu/faculty_index.html)**

**Attention: Astronomy Search Committee, Office of the Chair**  
The Department of Physics and Astronomy at UCLA invites applications for a tenure-track assistant professor or a tenured-level professor appointment in the area of instrumentation development and observational astrophysics at infrared wavelengths. The position will become available 1 July 2009. The department is particularly interested in applicants who will capitalize on the resources and extensive infrastructure of the UCLA Infrared Laboratory, a node of the University of California Observatories (UCO). During the past 19 years, the lab has built and exploited several unique instruments for the world's largest telescopes including SIRSPECC and OSIRIS for Keck. Current instrument projects include an infrared camera for NASA's Stratospheric Observatory for Infrared Astronomy, a multi-object spectrometer for the Keck I telescope, and an extreme AO spectrograph for the Gemini Observatory in collaboration with the Lawrence Livermore National Lab. The UCLA IR Lab is also leading in the design of an integral field spectrograph for a planned 30-meter telescope (TMT). In addition, the department is involved in present and future space missions (Spitzer, WMAP, WISE), ALMA and the high-energy gamma ray experiments VERITAS and Fermi. The department has strong observational programs in galactic astronomy and extragalactic astronomy/cosmology. The department currently is developing programs in extrasolar system planets, debris disks, and the search for life-bearing planets. Applications from candidates whose astronomical research is synergistic with these areas are particularly welcome. As a UCLA faculty member, the successful candidate will have direct access to the Keck and Lick Observatories. Candidates should submit a curriculum vitae, statement of research interests, publication list, and arrange to have at least three letters of recommendation sent to: Office of the Chair Attn: Astronomy Search Committee UCLA Department of Physics and Astronomy 473 Portola Plaza, Rm. 2-107 PAB Box 951547 Los Angeles, CA 90095-1547  
Please refer to Tracking # 1000-0809-01 in all correspondence. The application due date is January 15, 2009. However, the deadline may be extended until the position is filled. The Department has a strong commitment to the achievement of excellence and diversity among its faculty and staff. The University of California is an Equal Opportunity/Affirmative Action Employer.  
No benefits information has been provided by the employer.

**No. 25111**  
**Assistant Professor of Astronomy**  
**BOSTON UNIVERSITY**  
**725 Commonwealth Ave.**  
**Boston, MA 02215**  
**USA**  
**Tel: 617-353-2625**  
**FAX: 617-353-5704**  
**URL1: <http://www.bu.edu/astronomy>**  
**URL2: <http://www.astronomy.bu.edu>**  
**Email Inquiries: [jackson@bu.edu](mailto:jackson@bu.edu)**

**Attention: Professor James Jackson, Chair**  
Tenure-Track Faculty Position BOSTON UNIVERSITY  
The Department of Astronomy at Boston University invites applicants for a tenure-track Assistant Professor position in astrophysics. The successful candidate will be expected to lead a robust research program and to participate fully in the department's undergraduate and graduate teaching missions.  
We seek scientists with a strong research program in astronomy and astrophysics. We especially encourage applications from scientists whose research focuses on stellar astrophysics, and who will use Boston University instruments, modern ground-based telescopes, and/or existing and planned space-based facilities. In partnership with Lowell Observatory, Boston University operates and equally shares observing time on the 1.8 meter Perkins Telescope in Arizona. Instruments available to Boston University faculty are PRISM in the optical ([www.bu.edu/prism](http://www.bu.edu/prism)) and Mimir in the near-infrared ([people.bu.edu/clemens/mimir/index.html](http://people.bu.edu/clemens/mimir/index.html)) for use on the Perkins Telescope, and MIRS1 in the mid-infrared ([www.cfa.harvard.edu/mirs1](http://www.cfa.harvard.edu/mirs1)) on NASA's IRTF telescope.  
The Department of Astronomy and affiliated research units currently consist of 16 teaching faculty, 8 research faculty, 19 research associates, 40 graduate students, and over 40 undergraduate majors. Our research broadly spans the disciplines of astrophysics and space physics. The faculty is deeply committed to teaching at all levels and maintains numerous vigorous, externally funded research programs in astrophysics and space physics as administered by the Institute for Astrophysical Research, the Center for Space Physics, and the Center for Integrated Space Weather Modeling. Further details about the department and research units may be found at <http://www.bu.edu/astronomy>.  
Applicants should send a curriculum vitae, a brief (3 pages or fewer) summary of research and teaching plans, as well as the names of three scientists whom we may contact for letters of recommendation, to Professor James Jackson, Chair, Department of Astronomy, Boston University, 725 Commonwealth Ave., Boston, MA 02215. Questions can be directed to Prof. Jackson by email ([jackson@bu.edu](mailto:jackson@bu.edu)) or by telephone (617-353-2625).  
Boston University is an Affirmative Action/ Equal Opportunity employer. The University is committed to building a culturally diverse faculty and strongly encourages applications from female and minority candidates.

**No. 25357**  
**Astrocamp Instructor - Summer Camp Position**  
**ASTRO CAMP**  
**PO Box 3399**  
**Idyllwild, CA 92549**  
**Tel: 951-659-6062**  
**FAX: 951-659-9843**  
**URL1: [www.astrocamp.org](http://www.astrocamp.org)**  
**Email Submission Address: [mdobson@guideddiscoveries.org](mailto:mdobson@guideddiscoveries.org)**  
**Email Inquiries: [mdobson@guideddiscoveries.org](mailto:mdobson@guideddiscoveries.org)**

**Attention: Michael Dobson, Program Director**  
Teach at Astrocamp! We are looking for an energetic, dynamic, flexible people to be the instructors for our 2009 summer camp program. Basic requirements are a love for children, and a strong desire to teach. We currently have positions available in the following areas:  
Astrocamp Science Instructors Summer Camp Counselors  
Astrocamp is a unique physical science and astronomy summer camp located in the stunning San Jacinto Mountains of Southern California. Lasers, exploding gas balls, launching rockets, assembling space stations underwater and more are part of camp. Campers spend evenings looking at the rings of Saturn and beyond into deep space with our state of the art telescope program. Our adventure program takes campers mountain biking, rock climbing, hiking, and camping. We are located on a 90-acre campus adjacent to a national forest, only minutes away from world-class rock climbing, outstanding hiking and biking. Summer season: June 5, 2009 through August 1, 2009. Pay starts at \$250 per week plus room & board (some of the best food in the camping industry). Teaching/kit experience and willing to live in a close-knit community is a must. For more information check us out at [www.astrocamp.org](http://www.astrocamp.org). Please send resume and cover letter to Mike Dobson, Summer Program Director, Astrocamp PO Box 3399 Idyllwild, CA 92549 or to [mdobson@guideddiscoveries.org](mailto:mdobson@guideddiscoveries.org) by April 1, 2009. Preference will be given to early applicants.  
Salary and Benefits: Starting at \$250 per week, plus Room and Board. Staff live on-site in partially furnished group apartments and all meals are provided in the dining hall. Staff are not required to supervise students in the dorms or dining hall. Health insurance after six months of employment, and training is fully paid. Astrocamp is located on a 90-acre campus adjacent to a national forest with easy access to world-class rock climbing, outstanding hiking, and great mountain biking.

**No. 25358**  
**Astrocamp Instructor - School Year Position**

**ASTROCAMP**

PO Box 3399  
Idyllwild, CA 92549  
Tel: 951-659-6062  
FAX: 951-659-9843  
URL1: [www.astrocamp.org](http://www.astrocamp.org)

Email Submission Address: [mdobson@guideddiscoveries.org](mailto:mdobson@guideddiscoveries.org)  
Email Inquiries: [mdobson@guideddiscoveries.org](mailto:mdobson@guideddiscoveries.org)

Attention: Michael Dobson, Program Director  
Instructor - School Year Position

We are currently hiring instructors for the spring season, beginning January 2, 2009 and ending June 1, 2009 with opportunities to work future seasons as well. Astrocamp is a unique non-profit education center that specializes in astronomy and physical sciences. Located on a forested campus near the town of Idyllwild at an elevation of 5,600 feet amidst the beautiful San Jacinto Mountains of Southern California. Over 16,000 students from 8-14 years old attend Astrocamp each year. With excellent teaching facilities we bring science to life through hands-on, experiential classes and activities. Our labs and facilities include an Olympic sized pool, extensive ropes course and rock wall, innovative classrooms, and two state of the art telescope viewing areas with CCD capabilities. Instructors have small group sizes and remain with the same group of students throughout their 3-5 day program. Astrocamp provides incredible experiences for kids and instructors alike. Check us out at [www.astrocamp.org](http://www.astrocamp.org) or visit [www.guidediscoveries.org](http://www.guidediscoveries.org).  
To Apply: Send a resume, reference list, and cover letter to Michael Dobson at [mdobson@guidediscoveries.org](mailto:mdobson@guidediscoveries.org) or send to Michael Dobson, P.O. Box 3399, Idyllwild, CA 92549. Applications will be accepted until all positions are filled.  
Salary and Benefits: Starting at \$55 per day, plus Room and Board. Staff live on-site in partially furnished group apartments and all meals are provided in the dining hall. Staff are not required to supervise students in the dorms. Health insurance after six months of employment, and training is fully paid. Astrocamp is located on a 90-acre campus adjacent to a national forest with easy access to world-class rock climbing, outstanding hiking, and great mountain biking.

**No. 25385**

ApJ Scientific Editor  
CANDIDATE'S OWN INSTITUTION  
1280 Main Street West, GSB- 118  
Hamilton, ON L8S 4K1  
Canada

Tel: 905-525-9140 x 21297  
Email Submission Address: [apl@mcmaster.ca](mailto:apl@mcmaster.ca)  
Email Inquiries: [apl@mcmaster.ca](mailto:apl@mcmaster.ca)

Attention: Dr. Ethan T. Vishniac, Editor-in-Chief

THE ASTROPHYSICAL JOURNAL - SCIENTIFIC EDITORS

The American Astronomical Society is soliciting applications for Scientific Editor of The Astrophysical Journal. The ApJ Scientific Editors play a vital role in maintaining the high scientific standards of the Journal. Each editor oversees the peer review of 150-200 papers per year, and together with the other editors advises the Editor-in-Chief on issues of general editorial policy. Appointments are for terms of three years, subject to approval by the AAS Publications Board and the AAS Council, with an option for a second term at the discretion of the Editor-in-Chief. The term for this appointment would begin in June 2010.  
For these appointments we are seeking editors who can oversee the review of manuscripts in the following general areas: stellar astronomy and astrophysics, astrophysical plasmas and related topics. Candidates should have a strong record of published scientific research, and be prepared to commit the time (up to 20% FTE) that is required to carry out the duties of a Scientific Editor. Although these are largely volunteer positions, funding for office equipment, secretarial support, travel to editorial meetings, and a modest stipend or research grant. Scientific Editors are required to be members of the AAS during their terms of appointment, but residence at a U.S. institution is not required.  
No benefits information has been provided by the employer.

**No. 25401**

Anglo-Australian Observatory Operations Manager  
ANGLO-AUSTRALIAN OBSERVATORY  
P.O. Box 296  
Epping, NSW 1710  
Australia

Tel: 61-2-93724812  
FAX: 61-2-93724880  
URL1: [www.aao.gov.au](http://www.aao.gov.au) (AAO Website)

URL2: [www.aao.gov.au/local/www/jobs/](http://www.aao.gov.au/local/www/jobs/) (AAO Jobs)

Email Submission Address: [jobs@aao.gov.au](mailto:jobs@aao.gov.au)  
Email Inquiries: [director@aao.gov.au](mailto:director@aao.gov.au)

Attention: Personnel Officer

The Anglo-Australian Observatory (AAO) is seeking an Operations Manager for its two optical telescopes: the 3.9m Anglo-Australian Telescope (AAT) and the 1.2m United Kingdom Schmidt Telescope (UKST). The position is based at Siding Spring Mountain near Coonabarabran, located 480km north-west of Sydney. Coonabarabran is a progressive town with a modern high school, hospital and medical centre. The AAO headquarters and instrument laboratory are located in Sydney.

The successful applicant will have: a track record appropriate to successfully managing a technical team of 20-25 people and an operational budget of about \$3M p.a.; suitable scientific or technical qualifications or experience; excellent interpersonal, management and communications skills; and a commitment to equal employment opportunities and occupational health and safety.

This is a unique career opportunity to join a world-renowned organisation in a challenging position, and to enjoy the lifestyle benefits this location brings. The appointment is nominally indefinite, although a fixed term contract of five years could also be negotiated. The salary range is AUS103,700 to AUS112,400 p.a.

Selection will be based on the specific selection criteria and duty statement; the AAO is an equal opportunity employer. You should obtain the recruitment package from the AAO website ([www.aao.gov.au](http://www.aao.gov.au)) and follow its guidelines. Inquiries to: Professor Matthew Colless, director@aao.gov.au, +61-2-93724812. Written applications to: Personnel Officer, Anglo-Australian Observatory, PO Box 296, Epping, NSW 1710, Australia. Applications close on Friday 13 February 2009.  
This benefits with this position include superannuation of approximately 15.4%, an annual leave bonus, a company vehicle, certain travel and relocation costs.

**No. 25405**

PhD, Postdoc and Programmer in Computational Astrophysics  
FACULTY OF SCIENCE AT THE UNIVERSITY OF AMSTERDAM  
Faculty of Science (Office of Personnel)  
Kruislaan 403  
the Netherlands

Tel: +31 (0)20 5257510  
FAX: +31 (0)20 5257484  
URL2: <http://modesta.science.uva.nl/> (Research group project page)

URL3: <http://real.fys.uva.nl/espil/> (Project P.F. homepage)

Email Submission Address: [application-science@uva.nl](mailto:application-science@uva.nl)  
Email Inquiries: [S.Postegies2wart@uva.nl](mailto:S.Postegies2wart@uva.nl)

Attention: S.F.W. Jongenius, Jr.

We are looking for a graduate student, a postdoctoral researcher and a programmer to work in a research project on colliding galaxies. The position will be temporal and can start in spring or summer 2009. The objective is to study the merging of super-massive black holes in the central regions of galaxies throughout the process in which two galaxies merge. The research will be conducted using hierarchical and hybrid simulation environments. Our research uses a combination of direct N-body integration methods and indirect methods to solve the equations of motion of the galaxies and their central black holes. The calculations will be run on a cluster of graphical processing units. The available positions require frequent interactions within the research team and with international collaborators. Successful candidates should have an advanced degree in computational science, astrophysics or a related field. Experience in software development and programming in Python, C/C++ and CUDA are an advantage, as is an interest and experience in galaxy mergers, black holes and stellar dynamics in general. Candidates are requested to submit a curriculum vitae, a bibliography, cover letter and arrange to have three letters of recommendation sent to [application-science@uva.nl](mailto:application-science@uva.nl) (mention "VICI" in the Subject heading). For full consideration, applications must be received by 1 March 2009. More details are published on the research-group project page (<http://modesta.science.uva.nl/>).

No benefits information has been provided by the employer.

**No. 25411**

Space Astronomy Summer Program- 2009  
SPACE TELESCOPE SCIENCE INSTITUTE  
3700 San Martin Drive  
Baltimore, MD 21218  
USA

Tel:  
URL1: [https://www.ultrarecruit.com/SPA1004/jobboard/JobDetails.aspx?\\_ID=587124C31D7225E38](https://www.ultrarecruit.com/SPA1004/jobboard/JobDetails.aspx?_ID=587124C31D7225E38)

URL2: <https://www.ultrarecruit.com/SPA1004/jobboard/listjobs.aspx?Page=List>

Email Submission Address: [careers@stsci.edu](mailto:careers@stsci.edu)  
Email Inquiries: [summerintern@stsci.edu](mailto:summerintern@stsci.edu)

Attention: Human Resources #08-0072

Space Astronomy Summer Program 2009  
Each summer, the Space Telescope Science Institute brings a dozen highly motivated college students to Baltimore, Maryland, for a Space Astronomy Summer Program. The Space Telescope Science Institute is the scientific operations center for the Hubble Space Telescope and for the future James Webb Space Telescope.  
The Space Astronomy Summer Program runs ten weeks, from mid-June to mid-August, and is designed for upper division undergraduates with a strong interest in space astronomy. Students work individually with STScI researchers and staff on research projects that might include data reduction and interpretation, software development, scientific writing, preparing data for public releases. The program affords students the opportunity to attend lectures on a variety of exciting topics related to space astronomy, the Hubble and James Webb Space Telescopes. The Space Astronomy Summer Program provides students a fun educational experience within a team spirited environment. Students will be paid a stipend of approximately \$500 per week. The Space Telescope Science Institute is committed to the value and benefit of diversity. We strongly encourage qualified women and minority candidates to apply. The program is open to foreign students. STScI is a visa sponsor. EOE/M/F/D/V.  
Complete program information may be found at: <http://www.stsci.edu/institute/sd/students>  
The application deadline is February 20, 2009 Questions can be emailed to [summerintern@stsci.edu](mailto:summerintern@stsci.edu)

**No. 25425**

Micronesia Astronomy Education Coordinator  
PALMS RESORT SAIPAN  
P.O. Box 5235  
USA

Tel: 670-322-8632  
FAX: 670-322-1000  
Email Submission Address: [russessnowjr@aol.com](mailto:russessnowjr@aol.com)  
Email Inquiries: [RUSSESNOWJR@aol.com](mailto:RUSSESNOWJR@aol.com)

Attention: Russell Snow, Jr., President & CEO

Large 313 room luxury hotel on the island of Saipan is installing six Vixen telescopes of various power and would like someone (and their family, if desired) to come stay on the island and create observation and educational programs for both visitors and the local community. We have stella cams and will use large screen displays as well as observing thru eye pieces. The two largest telescopes have a Galax mount and a VMC330L optical tube. Potentially a great project for someone on sabbatical, or with a special interest in viewing the sky's of Micronesia. We are 3 1/2 hour flight south/east of Tokyo at lat 15.1190°, long 145.7294°. Spectacular skies and extremely low ambient light. The island has excellent communications capabilities and is a Protectorate of the U.S.A. English is common language, currency is U.S. dollar, and many tourists from Japan, Korea and China. Great place for families.  
Timeframe: The project could last from one to three months, starting in first quarter of 2009.  
Compensation: Roundtrip flight to Saipan; housing and living expenses, monthly salary.  
No benefits information has been provided by the employer.

**No. 25320 (New)**

Associate Director of Development  
AURA-GEMINI OBSERVATORY  
670 N. A'ohoku Place  
Hilo, HI 96720  
US  
Tel: 808-974-2500  
URL1: <http://www.gemini.edu/> (Gemini Observatory Website)  
URL2: <http://www.gemini.edu/jobs> (Gemini Observatory Jobs Page)  
Email Submission Address: [assnjobs@gemini.edu](mailto:assnjobs@gemini.edu)

Attention: Human Resources

At Gemini Observatory, it is our mission to teach humanity about the universe. Come join our international team operating two of the world's cutting-edge telescopes, located in Hawaii & Chile.

We have an immediate opening for an Associate Director for Development at Gemini North, in Hilo, Hawaii.  
The successful applicant will be responsible for managing the development of all new instrumentation at Gemini Observatory, including new Aspen instruments and advanced adaptive optics systems. The Associate Director for Development will be the principal Observatory representative to instrumentation teams across the entire Gemini Partnership who are designing, fabricating, and testing Gemini's next-generation instruments. Reporting to the Director, this position requires a broad range of technical, scientific, and management skills. Gemini's development program involves resources across the diverse Gemini Partner countries and provides the Observatory's user community with state-of-the-art research tools. Requirements include:

- Extensive experience with facility-class astronomical instrumentation
- Demonstrated leadership skills and an ability to quickly acquire the necessary understanding of complex issues
- Project management of highly distributed multi-million dollar programs
- Experience in strategic planning, budgetary planning, and financial management
- Experience in identifying project risks and developing strategies for addressing such challenges
- Experience developing metrics to monitor and assess progress across many independent development teams
- Ability to create clear and deliver meaningful presentations to governing boards
- Experience working in an astronomical observatory environment
- Preference given to qualified candidates with advanced degree in astronomy

Significant travel is required in order to interact on a regular basis with Gemini's instrument teams. Proposed starting date is mid-2009.  
Send a resume, a statement of experience and development activity interest, and the names of three professional references to [gemini-jobs@gemini.edu](mailto:gemini-jobs@gemini.edu)  
The consideration and evaluation of candidate materials will begin during December 2008, and will continue until the search has concluded.  
A/E/C/E

We have an excellent benefits package including 24 paid vacation days and 12 paid holidays per year, paid relocation, life insurance, 401(a) and 403(b) retirement plans, tuition assistance, long term disability insurance, travel/accident insurance, flexible spending account, and medical and dental insurance.

**No. 25141**

REU Summer Assistantships in areas of Radio Astronomy, Solar System Radar Astronomy, and Space & Atmospheric Sciences  
NATIONAL ASTRONOMY & IONOSPHERE CENTER/ARECIBO OBSERVATORY  
Cornell University  
504 Space Sciences Bldg  
Ithaca, NY 14853-6801  
USA  
Tel: 607-255-3735

FAX: 607-255-8803

URL1: [http://www.naic.edu/science/summer\\_set.htm](http://www.naic.edu/science/summer_set.htm) (Summer Program (REU))

Email Submission Address: [jm14@cornell.edu](mailto:jm14@cornell.edu)

Email Inquiries: [jm14@cornell.edu](mailto:jm14@cornell.edu)

Attention: *Jill Tarbell, Assistant to the Director*

NAIC will conduct a summer student program for undergraduates at the Arecibo Observatory in Puerto Rico during Summer 2009, which is funded by the National Science Foundation's Research Experience for Undergraduates (REU) Program. Areas of research include radio and radar astronomy, and space and atmospheric sciences. Students interested in electronic instrumentation or computer science are also encouraged to apply. The assistantships, which include a stipend, on-site lodging and round trip airline tickets, are conducted during a flexible ten-week period beginning in late May. Students will have opportunities to visit many of the beautiful sites of Puerto Rico, which is a U.S. Commonwealth. Undergraduates who are U.S. citizens or permanent residents, and who will be enrolled in a bachelor's degree program (part- or full-time) in Fall 2009 are eligible. In addition, NAIC anticipates supporting one or two positions for 1st- or 2nd-year graduate students who are enrolled in U.S. institutions (non-U.S. citizens may apply). Application forms are available at [http://www.naic.edu/science/summer\\_set.htm](http://www.naic.edu/science/summer_set.htm). Application deadline is February 2, 2009. EOE/AAE

No. 25347

CANFAR Transient Source Detection Data Specialist  
UNIVERSITY OF VICTORIA

Tel: [michael.peddle@astrosci.ca](mailto:michael.peddle@astrosci.ca)

Email Submission Address: [michael.peddle@astrosci.ca](mailto:michael.peddle@astrosci.ca)

Email Inquiries: [michael.peddle@astrosci.ca](mailto:michael.peddle@astrosci.ca)

Attention: *Michael Peddle, Project Administrator*  
Postdoctoral Position in Canadian Network For Astrophysical Research University of Victoria

Email for submission and inquiries: [michael.peddle@astrosci.ca](mailto:michael.peddle@astrosci.ca)

The University of Victoria invites applications for a post-doctoral fellowship in the detection and measurement of astrophysical transients. The successful candidate will work with Drs. JJ Kavelaars and Chris Pritchett at the University of Victoria and the Herzberg Institute of Astrophysics to develop robust and effective data analysis processes for studying astrophysical transients (e.g. novae, light echoes, supernovae, Kuiper belt objects). These algorithms will initially be applied to data acquired as part of the Next Generation Virgo Cluster Survey -- an approved CFHT Large Programme that will start science operations in the Spring of 2009. The algorithms will also be used in the analysis of existing CFHT archival Megacam observations housed at the Canadian Astronomical Data Center.

The successful candidate will contribute to software development in support of time variable surveys, and produce an implementation plan for software integration within the Canadian Advanced Network for

Astronomical Research (CANFAR). He/she will also participate in co-ordinated ground-based follow-ups of detected transients.

Candidates with a Ph.D. in astronomy, astrophysics or a related field are preferred. However, candidates with a strong research record in any area of astrophysics will be considered.

Candidates must possess a Ph.D. in astronomy, demonstrated skills in software development and in the processing of observational astronomical data, and a strong record of independent research. Appointments will start on April 1, 2009 or earlier; later starting dates may be considered. The initial appointment of two years will be extended to a third and possibly a fourth year subject to strong performance and availability of funding. The fellowship stipend is \$CDN 65,000, a benefits package, and an annual research fund of up to \$CDN 8000.

The successful applicant will have access to all of the telescope facilities available to ULVIC and HIA, as well as to the Canadian Astronomy Data Centre, and storage, processing and grid facilities developed as part of CANFAR.

Closing date for applications is February 15, 2008. Applicants should email a statement of research interests, curriculum vitae, and list of publications (in either postscript or PDF form) to [Michael.Peddle@astrosci.ca](mailto:Michael.Peddle@astrosci.ca), and arrange to have three letters of recommendation emailed to the same address by the closing date.

Standard medical and dental benefits offered by the University of Victoria

No. 25355

Postdoctoral Positions in Gamma-Ray Astronomy and Dark Matter Detection  
UNIVERSITY OF CALIFORNIA, LOS ANGELES

University of California  
Los Angeles, CA 90095-1547

USA

Tel: 310-825-3622

FAX: 310-206-2096

URL1: [http://astro.ucla.edu/~svrneo/postdoc2008/nas\\_ad.txt](http://astro.ucla.edu/~svrneo/postdoc2008/nas_ad.txt) (Posting of Ad.)

URL2: <http://www.astro.ucla.edu/~sveritas/> (VERITAS at UCLA.)

URL3: <http://gamma1.astro.ucla.edu/gaps/index.html> (GAPS Experiment for Dark Matter Detection.)

Email Submission Address: [svrneo@ucla.edu](mailto:svrneo@ucla.edu)

Email Inquiries: [svrneo@astro.ucla.edu](mailto:svrneo@astro.ucla.edu)

Attention: *Reine Ong, Professor*

We invite applications for postdoctoral research positions at the University of California Los Angeles (UCLA) in the areas of gamma-ray astronomy and dark matter detection.

We are seeking a talented individual to carry out research with VERITAS -- a major ground-based gamma-ray observatory located in southern Arizona and sensitive to photons with energies between 50 GeV and 50 TeV. See <http://www.astro.ucla.edu/~veritas/> for more details. There is also the possibility to analyze data from the Large Area Telescope (LAT) of the recently launched Fermi Gamma-ray Space Telescope. We encourage candidates with an instrumental/observational background in astronomy or an experimental background in particle/nuclear physics to apply.

We also seek a talented researcher to participate in the development of the GAPS experiment -- a novel balloon-borne instrument sensitive to low-energy anti-deuterons that could signal the annihilation of neutralino dark matter. See <http://gamma1.astro.ucla.edu/gaps/index.html> for more details. We encourage candidates with experimental backgrounds in astrophysics or particle/nuclear physics to apply.

A Ph.D. or equivalent degree, in physics or astronomy is required. Applicants should send a CV and arrange for at least three letters of recommendation to be sent to:

Prof. Rene Ong Department of Physics and Astronomy University of California Los Angeles, CA 90095-1547

Deadline for receipt of applications is March 1, 2009.

See: <http://map.ais.ucla.edu/portal/site/UCLA/menuitem.3f8e7342ad4ca217b66d4ab4f848344a/?vgnextoid=5f8340012db6ff00vgvncM1000008f8443a4RCRD>

No. 25356

Postdoctoral Research Fellow  
CALIFORNIA INSTITUTE OF TECHNOLOGY

770 So. Wilson Ave.

MS 100-22

Pasadena, CA 91125

USA

Tel: 626-395-2418

Email Submission Address: [meh@ipac.caltech.edu](mailto:meh@ipac.caltech.edu)

Attention: *Mary Eliza Gabba, Supervisor of Staff Operations*

Applications are invited for a Postdoctoral Research Fellow position with Drs. Lee Armus, Phil Appleton, and George Helou to work on the Key Insights on Nearby Galaxies (KINGFISH) Herschel Open Time Key Project. The successful applicant will join the KINGFISH team, and be involved with the reduction and analysis of KINGFISH data, primarily spectroscopic mapping observations using the Photodetector Array Camera and Spectrometer (PACS). KINGFISH builds upon the successful Spitzer Legacy Project SINGS, focusing on star formation and the physics of the interstellar medium (ISM) in a large sample of nearby galaxies spanning the entire range of Hubble types. The broad goals of KINGFISH are to characterize the ISM of present-day galaxies, track the heating and cooling of their gaseous and dust components, and better understand the physical processes linking star formation to the ISM. A wide variety of ancillary data are being assembled to aid in the interpretation of the Herschel PACS and SPIRE observations.

Research experience with an emphasis on star-forming and/or active galaxies and infrared emission is desired. Experience with the reduction and photometric measurement of space-based data (particularly Spitzer IRS or similar data) are also highly desired. The successful applicant will have access to the Caltech 200-inch and 60-inch Palomar telescopes. Candidates should have obtained, by the starting date, a Ph.D. in Astronomy, Physics, Astrophysics, or equivalent.

The appointment is for one year, renewable for an additional year, and will ideally begin on or before September 1, 2009. To apply, please send resume, publication list, and statement of research to the above address as soon as possible, and have three letters of reference forwarded to the same address. The deadline for applications is March 1, 2009.

Caltech is an Affirmative Action/Equal Opportunity Employer. Women, Minorities, Veterans, and Disabled Persons are encouraged to apply.

No benefits information has been provided by the employer.

No. 25359

2 Post-doctoral positions (3 years), CMB/Week-Lensing, CEA-Saclay, SAP  
CEA SACLAY, SERVICE D'ASTROPHYSIQUE

Tel:

Email Submission Address: [jstarck@cea.fr](mailto:jstarck@cea.fr)

Attention: *Jean-Luc Starck, Dr.*

The Service d'Astrophysique (SAP) at CEA Saclay invites applications for two postdoctoral appointments in the area of Cosmology to work with Jean-Luc Starck and Alexandre Refregier.

The CEA Saclay is a government research center situated 40 minutes from central Paris, France. The SAP has a wide interest in astrophysics ranging from planets to cosmology, with a specialisation in space missions (eg. Euclid, XMM-Newton, Herschel, PLANCK, JWST, Integral etc) and instrumentation (eg. Megacam on the Canada-France-Hawaii Telescope).

The first position is to work on weak lensing (3D analysis, non-Gaussianity, etc) and the second is to work on the Cosmic Microwave Background and the Planck satellite data analysis (CMB lensing, non-Gaussianity, component separation, etc). Candidates should have a PhD in Physics or Astronomy. Previous experience in cosmology and the development of data analysis methods is preferred, but experience in related areas is also suitable.

These positions, starting in the fall 2009, are funded for at least 3 years (and up to 5 years) by the European Commission, and will be renewed on a yearly basis depending on scientific progress and achievement.

The gross minimum salary will be 34,000€ annually (~2,260€ net per month), and will be adjusted according to experience and family situation.

A minimum of 5,000€ per year of travel money for each position will also be provided, in addition to the usual funding support of any French institution (medical insurance, etc).

No. 25360

Post-Doctoral Scholar positions in Astrophysics  
UNIVERSITY OF CHICAGO

5640 S. Ellis Avenue

Chicago, IL 60637

USA

Tel: 773-834-0849

FAX: 773-834-3230

URL1: <http://flash.uchicago.edu>

Email Submission Address: [eders@flash.uchicago.edu](mailto:eders@flash.uchicago.edu)

Email Inquiries: [eders@flash.uchicago.edu](mailto:eders@flash.uchicago.edu)

Attention: *Carrie Eden, Administrator*

The DOE-funded ASC/Alliance Center for Astrophysical Thermonuclear Flashes at the University of Chicago (the Flash Center) invites applications for Post-Doctoral Scholar positions in astrophysics.

The Center's purpose is to apply a general fluid dynamics/combustion code (FLASH) to the problem of Type Ia supernovae, including rigorous validation of Type Ia supernova simulations through comparisons with observational data. The Center's vigorous scientific program involves frequent interactions with theorists and experimentalists from the National Laboratories, and collaborations with leading academic centers in the US and Europe.

Successful applicants will build numerical simulations of Type Ia supernovae with the goal of understanding the explosion mechanism(s). A PhD by the date of appointment and experience in computational fluid dynamics and theoretical astrophysics are required. Some knowledge of statistical methods would be useful. Good communication skills and the ability to work in a team environment are also desirable.

The positions are for one year with the possibility of renewal. The positions are for immediate employment.

To apply, please submit to the address below a curriculum vitae, list of publications, a brief description of research interests and the names of three references. Applicant should request letters of reference be sent directly to the Flash Center. Please refer to "Post-Doctoral Scholar Position in Astrophysics" when applying. Applications will be accepted until the positions are filled.

The University of Chicago is an Affirmative Action/Equal Opportunity Employer.

No benefits information has been provided by the employer.

No. 25361

Postdoctoral in Theoretical High Energy  
PURDUE UNIVERSITY

525 Northwestern Avenue

Physics Room 324

West Lafayette, IN 47907-2036

USA

Tel: 765-494-5396

Email Submission Address: [lyutikov@purdue.edu](mailto:lyutikov@purdue.edu)

Email Inquiries: [lyutikov@purdue.edu](mailto:lyutikov@purdue.edu)

Attention: *Maxim Lyutikov, Professor*

The Department of Physics at Purdue University invites applications for a postdoctoral position to work in the area of theoretical high energy astrophysics. Candidates with interests in plasma astrophysics and compact objects are particularly encouraged to apply.

Candidates must hold a Ph.D. in physics or astrophysics or an equivalent degree. Salary will be commensurate with qualifications and experience. Additional research funds will be available. The position will initially be for one year and may be extended up to three years, depending on satisfactory performance and availability of funding.

Qualified applicants should send their resume, publication list and a statement of research interests (up to four pages), and arrange for three letters of recommendation to be sent to: Professor Maxim Lyutikov,

Department of Physics, Purdue University, 525 Northwestern Avenue, West Lafayette, IN 47907-2036, or electronically to the address above.

Review of applications will begin on February 1, 2009, early submission is encouraged. Email submissions are preferred. Purdue University is an equal opportunity/equal access/affirmative action employer fully committed to achieving a diverse workforce.

No benefits information has been provided by the employer.

No. 25362

Postdoctoral Research Scholar in the field of Space, Astrophysical, and Computational Plasma Physics  
UNIVERSITY OF IOWA

Tel:

Attention: [gregory-howes@uiowa.edu](mailto:gregory-howes@uiowa.edu)

The Department of Physics and Astronomy at the University of Iowa invites applications for a Postdoctoral Research Position in the field of Space, Astrophysical, and Computational Plasma Physics. Research focuses on turbulence in kinetic plasmas, a new and exciting frontier in the study of space and astrophysical plasmas, with a strong emphasis on high-performance computing. The successful candidate will have a Ph.D. in physics, or a closely related field, with experience in computational or plasma physics research. Substantial programming experience is essential; preference will be given to those with experience in space, astrophysical, or plasma physics. The successful applicant will learn to perform cutting-edge research on some of the world's fastest supercomputers. The position is for two years, with potential renewal for a third year. The University of Iowa is an equal opportunity employer and encourages applications from women and minorities. Applicants should send (in PDF) a cover letter, CV, and statement of research interests and arrange for at least three letters of recommendation to be sent via e-mail to Professor Howes at [gregory-howes@uiowa.edu](mailto:gregory-howes@uiowa.edu). Alternatively, applications may be sent by post to Professor Gregory Howes, Department of Physics and Astronomy, 505 Van Allen Hall, University of Iowa, Iowa City, IA 52242. Review of applications will begin on January 1, 2009, but applications will be accepted on a continuing basis until the position is filled. The start date is flexible, but may be as early as February 1, 2009, or as late as September 1, 2009.

Benefits include medical and dental insurance.

No. 25363

Gamma-Ray Astrophysics post-doctoral position  
SPACE SCIENCE DIVISION, NAVAL RESEARCH LABORATORY  
Code 7650

Naval Research Lab  
Washington, DC 22375  
United States

Tel: 202-767-3112  
FAX: 202-767-6473

Email Submission Address: [eric.grove@nrl.navy.mil](mailto:eric.grove@nrl.navy.mil)

Email Inquiries: [eric.grove@nrl.navy.mil](mailto:eric.grove@nrl.navy.mil)

Attention: J. Eric Grove, Dr.

The High Energy Space Environment Branch of the Naval Research Laboratory seeks qualified applicants for post-doctoral research in high-energy astrophysics with the Large Area Telescope (LAT) of the Fermi Gamma-ray Space Telescope. The HESB Branch has strong observational and theoretical research interests in galactic compact sources, active galaxies, and gamma-ray bursts. The Branch designed and built the LAT Calorimeter and offers the successful candidate post-doctoral membership in the Fermi LAT collaboration. Other activities of the Branch include development of gamma ray and particle detectors for space-based astrophysics and ground-based homeland security applications, and observational and theoretical investigations of X-ray and cosmic-ray emissions from celestial sources and high-energy solar flare activity.

We are seeking a candidate with (1) strong astrophysics and mathematical background, with an emphasis on high-energy sources and processes, (2) skills in planning and performing astrophysical research activities, (3) background in computational methods and analyses, and (4) interest in semiconductor and scintillation detector principles and use.

Experience from space-based or ground-based gamma-ray experiments is a plus, as are experience with simulation tools and an interest in the near-Earth space environment. The successful candidate should hold a Ph.D. in a related field and experience demonstrated by published results.

Post-doctoral fellowships are available through the National Research Council and are found at the "National Research Council Postdoctoral Fellowship" webpage. The current annual stipend for an NRC/NRL Associate is \$69,764. Other post-doctoral opportunities are available for strong candidates who are not U.S. citizens or permanent residents.

For more information, contact Dr. J. Eric Grove, Code 7650, Naval Research Laboratory, Washington, DC 20375-5352. Phone (202) 767-3112, e-mail: [eric.grove@nrl.navy.mil](mailto:eric.grove@nrl.navy.mil). NRL is an equal opportunity employer.

A group health-insurance program is required for NRC Associates and is optional for dependents. The cost of this program is shared by the Associate and the sponsoring agency.

Suitable relocation reimbursement and funds for limited professional travel during NRC tenure are provided.

No. 25364

Postdoctoral Position(s) in Canadian Network For Astrophysical Research; extragalactic and/or stellar astrophysics  
UNIVERSITY OF BRITISH COLUMBIA

Tel:

URL1: <http://www.astronci.ca/NGVS/Home.html> (Next Generation Virgo Cluster Survey)

Email Submission Address: [michael.peddle@astronci.ca](mailto:michael.peddle@astronci.ca)

Email Inquiries: [muache@phas.ubc.ca](mailto:muache@phas.ubc.ca)

Attention: Michael Peddle

Postdoctoral Position(s) in Canadian Network For Astrophysical Research University of British Columbia

Email for submission and inquiries: [michael.peddle@astronci.ca](mailto:michael.peddle@astronci.ca)

The University of British Columbia is seeking applications for one to two post-doctoral fellowships in the field of stellar and/or extragalactic astrophysics. The successful candidates will work with faculty members at the University of British Columbia, contributing to software development in support of approved CFHT optical surveys, the PAndAS and the Next Generation Virgo Cluster Survey.

PAndAS will image M31 and M33 over 300 square degrees to an extremely low surface brightness ( $> 31$  mag/arc sq arcsec). The Milky Way, M31 and M33 are the only three large galaxies in the Universe which can currently provide constraints on fundamental predictions of galaxy formation models. PAndAS will provide the first panoramic view of galaxy haloes over a volume of  $\sim 15$  million cubic kpc, and will be complete to 32 - 33 mags per sq. arcsec. It will also provide the deepest and most complete panorama of galaxy haloes available, and will be used to compare to and constrain cosmological models of galaxy formation over an order of magnitude in halo mass. It will be unrivaled by any other extra-galactic wide field survey and will become a benchmark study of near field galaxy formation.

The Next Generation Virgo Cluster Survey is an approved CFHT large program that will start science operations in the Spring of 2009. The survey is described on the NGVS project website. The successful candidate will work on research projects aimed at studying the structural and dynamical properties of galaxies in Virgo, and/or the connection between baryonic substructures and Dark Matter by using weak lensing, intrinsic alignment and photometric redshifts measurements.

Candidates must possess a Ph.D. in astronomy, demonstrated skills in software development and in the processing of observational astronomical data, and a strong record of independent research. Appointments starting on June 1st, 2009 or earlier are strongly preferred, although a starting date as late as September 2009 will be considered. The initial appointment of two years will be extended to a three year subject to good performance and availability of funding. The fellowship carries an annual stipend, a benefit package, and an annual research fund of up to \$8,000. The successful applicant will have access to all of the telescope facilities available in Canada, as well as to the Canadian Astronomy Data Centre, and storage, processing and grid facilities developed as part of CANFAR.

Closing date for applications is January 31st, 2009. Applicants should email a statement of research interests, curriculum vitae, and list of publications (in either postscript or PDF form) to [michael.peddle@astronci.ca](mailto:michael.peddle@astronci.ca), and arrange to have three letters of recommendation emailed to the same address by the closing date.

No benefits information has been provided by the employer.

No. 25366

Postdoctoral position in coronal mass ejections  
SMITHSONIAN ASTROPHYSICAL OBSERVATORY

Tel:

Email Submission Address: [jraymond@cfa.harvard.edu](mailto:jraymond@cfa.harvard.edu)

Email Inquiries: [jraymond@cfa.harvard.edu](mailto:jraymond@cfa.harvard.edu)

Attention: John Raymond

Applications are invited for a postdoctoral research position at the Harvard-Smithsonian Center for Astrophysics (Smithsonian Astrophysical Observatory). The research will focus on the energy budget of Coronal Mass Ejections, in particular on heating of CME plasma after it leaves the solar surface. The project involves data analysis, numerical models of the time-dependent ionization state of the ejected plasma, and numerical calculation of magnetic relaxation in expanding flux ropes.

The anticipated starting date is between Spring and Fall 2009. The initial appointment is for 1 year, with renewal for the second and third years subject to satisfactory performance and continuation of funding.

The applicant must hold a PhD in astronomy, astrophysics, physics or a closely related field at the start of the appointment. Experience and skill in one or more of the following areas are highly desirable: reduction and analysis of spectral data; reduction and analysis of solar imaging data; numerical solution of magneto-hydrodynamic equations; numerical calculations of time-dependent ionization and emission line spectra.

Knowledge of the physical processes relevant to CMEs is also highly desirable.

To apply, please submit an electronic CV, publication list and a statement of research interests to [jraymond@cfa.harvard.edu](mailto:jraymond@cfa.harvard.edu). Applicants should also arrange for 3 confidential letters to be sent to the same email address. We will begin to review applications on March 2, 2009. Questions regarding this project should be addressed to John Raymond ([jraymond@cfa.harvard.edu](mailto:jraymond@cfa.harvard.edu)). Ad van Ballegoijen

([vanballegoijen@harvard.edu](mailto:vanballegoijen@harvard.edu)) or Kelly Korreck ([kkorreck@cfa.harvard.edu](mailto:kkorreck@cfa.harvard.edu)).

Medical insurance will be covered.

No. 25367

EXES Instrument Postdoc  
UC DAVIS

1 Shields Ave  
Davis, CA 95616  
USA

Tel: 530-752-2226

FAX: 530-752-4717

URL1: [http://www.sofia.usra.edu/Science/instruments/instruments\\_exes.html](http://www.sofia.usra.edu/Science/instruments/instruments_exes.html) (EXES website at SOFIA)

URL2: <http://exes.studies.ucdavis.edu/postdocs/benefits.html> (Description of Postdoctoral scholar benefits at UC Davis)

Email Submission Address: [richter@ucdavis.edu](mailto:richter@ucdavis.edu)

Email Inquiries: [matthew.j.richter@ucdavis.edu](mailto:matthew.j.richter@ucdavis.edu)

Attention: Matthew J. Richter

Dr. Matthew Richter at UC Davis is looking for a postdoc to work on the Echelon-cross-Echelle Spectrograph (EXES) being built for SOFIA. The successful applicant will be involved in final instrument assembly, system testing, engineering and executing on SOFIA. The successful applicant will be involved in both the instrument assembly and the observation of the instrument. The position is for three years with potential continuation as a member of the EXES team and is contingent on funding. Three quarters of the applicant's time will be devoted to work on EXES and the remainder can be used for independent research related to star formation, circumstellar disks, and astrochemistry. Experienced instrumentalists are strongly preferred with infrared and spectroscopy experience a plus. Please send a CV, a statement describing how the applicant's interests fit the position, and the names and contact information for 3 references to Dr. Matthew Richter. Electronic submissions are encouraged. Review of applications will begin March 1, 2009 and the position will remain open until filled. Women and minorities are encouraged to apply.

The University of California has partnered with Garnett-Powers & Associates (GPA) to broker the University of California Postdoctoral Scholar Benefits Plan (PSBP). This plan is a comprehensive package of benefits tailored to the needs of Postdoctoral Scholars and their families. Benefits offered include medical, dental, vision, short-term disability, life, accidental death & dismemberment, and voluntary long-term disability coverage.

No. 25368

Postdoctoral Research Position in Very High Energy Gamma-Ray Astronomy  
BARNARD COLLEGE, COLUMBIA UNIVERSITY

3009 Broadway  
Physics & Astronomy, 506 Altschul Hall  
New York, NY 10027  
USA

Tel: (212)854-3628

FAX: (212)854-5760

Email Submission Address: [muk@astro.columbia.edu](mailto:muk@astro.columbia.edu)

Email Inquiries: [muk@astro.columbia.edu](mailto:muk@astro.columbia.edu)

Attention: Reshmi Mukherjee, Professor

We invite applications for a postdoctoral research scientist to work in ground-based gamma-ray astronomy at Barnard College, Columbia University. We are members of the VERITAS collaboration, which is operating an array of four 12-meter air-Cherenkov telescopes in Southern Arizona. The successful applicant will work with Prof. Reshmi Mukherjee on the acquisition, analysis and interpretation of VERITAS data and on design studies for future gamma-ray observatories (e.g., AGIS, the Advanced Gamma-Ray Imaging System). In addition, the research scientist will have the opportunity to work on the analysis of Fermi Gamma-Ray Space Telescope data. Barnard College is a four year liberal arts college for women, affiliated with Columbia University. The candidate will be a member of the Columbia Astrophysics Laboratory. The successful candidate will be based in New York and will be expected to travel to Arizona periodically to work at the VERITAS site.

We encourage candidates with experimental backgrounds in astronomy/astrophysics or particle physics to apply. A Ph.D. or equivalent degree, in physics or astronomy is required, and related experience in gamma-ray astrophysics is desirable. Additional experience in analysis of X-ray data would be useful. Applicants should send a cover letter, CV and a statement of research interests, and arrange for three letters of recommendation to be sent to:

Prof. Reshmi Mukherjee Dept. of Physics & Astronomy Barnard College 3009 Broadway New York, New York 10027

Letters of recommendation can be sent via e-mail. Review of applications will begin immediately and continue until the position is filled. The appointment will initially be for 2 years, with a possibility for extension. Barnard College is an Equal Opportunity Employer and encourages applications from women and individuals from under-represented groups.

No benefits information has been provided by the employer.

No. 25369

Postdoctoral Researcher for Studies of Nearby Galaxies and the Milky Way  
PEKING UNIVERSITY

Tel:

URL1: <http://yoga.bac.pku.edu.cn/yweng/postdoc.html> (Ad with hyperlinks)

URL2: <http://kiaa.pku.edu.cn> (KIAA website)

URL3: <http://yoga.bac.pku.edu.cn/astro/astro.htm> (PKU Astronomy Department website)

Email Submission Address: [peng@bac.pku.edu.cn](mailto:peng@bac.pku.edu.cn)

Email Inquiries: [peng@bac.pku.edu.cn](mailto:peng@bac.pku.edu.cn)

Attention: Eric Peng

The Department of Astronomy at Peking University and the Kavli Institute for Astronomy and Astrophysics (KIAA) invites applications for a post-doctoral research position focused on studies of nearby galaxies and/or the Milky Way. The successful applicant will work on projects of mutual interest with Dr. Eric Peng and his collaborators, pursue an independent research program, and contribute to the scientific life of the Department and the affiliated Kavli Institute for Astronomy and Astrophysics (KIAA). Possible research programs will use data from the ACS Virgo and Fornax Cluster Surveys, the HST/ACS Coma Cluster Treasury Survey, the Next Generation Virgo Survey, SDSS, upcoming spectroscopic surveys with LAMOST, or from other large ground-based facilities. Applicants with expertise in observations or modeling of stellar populations, galaxy dynamics, and large surveys are particularly encouraged to apply.

Peking University is one of the premier universities in Asia, and is host to the KIAA. The successful applicant will be based at the KIAA, where English is the working language, and will participate in the rapid growth of an international physics research site. Site or home will be provided a research budget, and will have opportunities to work abroad with collaborators in the U.S., Canada, Chile, and Europe.

The appointment will be for two years with a possibility for a third. Possible start dates are April, July, and October, 2009, by which point the applicant should have obtained a PhD in astronomy, physics, or a related field. Salary and compensation depend on qualifications and experience. Applicants should submit via email a cover letter, curriculum vitae, list of publications, a 1-2 page statement of current and future research interests, and arrange for three letters of recommendation to be sent directly to [peng@bac.pku.edu.cn](mailto:peng@bac.pku.edu.cn) by 30 January 2009.

No benefits information has been provided by the employer.

No. 25371

Extragalactic Radio Astronomy  
UNIVERSITY OF CAPE TOWN

Astronomy Department  
RW James Building, Upper Campus  
South Africa

Tel: +27 - 021 650 5830

FAX: +27 - 021 650 3342

URL1: <http://www.ast.uct.ac.za> (Department of Astronomy, UCT)

Email Submission Address: [admin@ast.uct.ac.za](mailto:admin@ast.uct.ac.za)

Email Inquiries: [admin@ast.uct.ac.za](mailto:admin@ast.uct.ac.za)

Attention: Ms Carol Marsh, Administrative Officer

The Department of Astronomy of the University of Cape Town is opening a postdoctoral fellow research position in extragalactic radio astronomy funded by the South African SKA Office (see [www.ska.ac.za](http://www.ska.ac.za)). South Africa is constructing MeerKAT, a  $\sim 60$  dishes radio interferometer serving as SKA demonstrator. We are seeking for an enthusiastic candidate interested in joining our growing extragalactic radio astronomy group to initiate and collaborate in research projects optimized for the unique capabilities of MeerKAT. Candidates will also have access to the 30% South-African share on SALT and other telescopes at SAAO ([www.sao.ac.za](http://www.sao.ac.za)).

The successful applicant will work with Profs. Erwin de Blok and Renée Kraan-Korteweg on extragalactic HI surveys, galaxy evolution and various aspects of radio interferometry. This could involve optimization of experiments to be performed with MeerKAT (complete by 2012; and KAT-7 from 2009), but also multi-wavelength studies of the ISM and dynamics of nearby galaxies, or intermediate redshift galaxies. Experience in radio interferometry would be an asset.

The initial appointment is for two years, with extensions possible. A PhD in astronomy or related field is required. The salary will be tax-free. Equipment and travel funding is available. Interested candidates should send a CV, bibliography, brief summary of research, outline of future plans, and three letters of recommendation by 1 Feb 2009 to Ms Carol Marsh ([admin@ast.uct.ac.za](mailto:admin@ast.uct.ac.za)). Electronic submissions are encouraged. Applications will be considered from that date until the position is filled. The position is available immediately.

No benefits information has been provided by the employer.

No. 25372

POSTDOCTORAL RESEARCH IN RESOLVED STELLAR POPULATION STUDIES  
KAPTEYN ASTRONOMICAL INSTITUTE

Postbus 800

Tel: 050 3638323  
FAX: 050 3636100  
URL1: [www.astro.rug.nl](http://www.astro.rug.nl) (*Kapteyn Astronomical Institute*)  
URL2: [www.astro.rug.nl/~elinetolstov](http://www.astro.rug.nl/~elinetolstov) (*Elaine Tolstoy & DART*)  
Email Submission Address: [elinetolstov@astro.rug.nl](mailto:elinetolstov@astro.rug.nl)  
Email Inquiries: [elinetolstov@astro.rug.nl](mailto:elinetolstov@astro.rug.nl)

Attention: Prof. Elaine Tolstoy  
Applications are invited for a postdoctoral position at the Kapteyn Astronomical Institute, University of Groningen, in the Netherlands. The successful candidate will join the research group led by Elaine Tolstoy and funded by a NWO VICI grant. The research group is focused on studying resolved stellar populations in the Local Universe as probes of galaxy formation and evolution. The position is aimed at a motivated and independent researcher with a record of excellence in observational astronomy and specific interest and/or experience in the study of resolved stellar populations. Possible projects include DART collaborations; high and/or low resolution abundance work on individual stars in nearby galaxies; Colour-Magnitude Diagram analysis of galaxies in the Local Group. There is also the possibility to be involved in ELT instrument studies. Independent projects are also encouraged. The position will be a 3 year appointment, starting as soon as possible. Applicants should send a curriculum vitae, a short summary of research interests, and arrange for three letters of reference to be sent to: [elinetolstov@astro.rug.nl](mailto:elinetolstov@astro.rug.nl) Questions should be directed to same email address or +31 50 3638323. All applications received prior to February 2, 2009 are assured of full consideration, however, the position is open until filled.  
The University of Groningen offers a salary dependent on qualifications and work experience up to a maximum of € 4374 (scale 11) gross per month for a full-time position.

No. 25374  
Research Associate - Adaptive Optics (AO)  
HERZBERG INSTITUTE OF ASTROPHYSICS (HIA)  
5071 West Saanich Road  
Victoria, British Columbia (BC) V9E 2E7  
Canada

Tel:  
URL1: [http://careers-careers.nrc-cnrc.gc.ca/main\\_e.html](http://careers-careers.nrc-cnrc.gc.ca/main_e.html) (English - You must apply via this link or the one below)  
URL2: <http://web.uvic.ca/saicir/optics/> (University of Victoria AO Laboratory - Info)  
URL3: <http://www.uvic.ca/saicir/optics/> (University of Victoria AO Laboratory - Info)  
Email Inquiries: [jean-pierre.veran@nrc-cnrc.gc.ca](mailto:jean-pierre.veran@nrc-cnrc.gc.ca)

Attention: *Hilary Research Council of Canada (NRC)* is a dynamic, nationwide R&D organization committed to helping Canada realize its potential as an innovative and competitive nation. A Research Associate is required to work on adaptive optics (AO) research, as part of the National Research Council of Canada's Herzberg Institute of Astrophysics (NRC-HIA) Adaptive Optics (AO) Team. The NRC-HIA AO Team is currently involved in the design of the Narrow Field Infra-Red AO System (NFIKAOS), a first light Multi-Conjugate AO (MCAO) system for the Thirty Meter Telescope (TMT), and in the construction of the Gemini Planet Imager (GPI), which consists of an integral field spectrograph that is coupled with a very high order AO system and a coronagraph to directly image planets and faint structures around other stars on the Gemini 8-meter Telescope. In the recent past, the NRC-HIA AO Team has also played a major role in several feasibility studies, including a Multi-Object AO (MOAO) system for TMT, Ground Layer AO (GLAO) systems for TMT, for Gemini and for the Canada-France Hawaii Telescope, and is therefore well positioned to continue to work on these projects when/if they are moved forward. The NRC-HIA AO Team also has a vibrant research and development (R&D) program, as recently illustrated by the Victoria Open-Loop Test bench (VOLT) project, which resulted in the on-sky demonstration of open-loop AO using the NRC-HIA 1.2-metre telescope, a world premiere. Finally, the NRC-HIA AO Team works in close collaboration with the University of Victoria (UVic) AO Laboratory, a state-of-the-art experimental AO research facility that has already made significant advances, e.g. in the fields of "woofer-tweeter" control and optimal wave-front sensing, and is gearing up towards a full scale MOAO demonstrator.

The Associate will perform original AO research in collaboration with the rest of the NRC-HIA AO Team and with the UVic AO Lab; supporting the current and future HIA AO projects. The initial appointment will be for a two-year term, subject to the Associate's performance and subject to the requirements of NRC, the appointment may be extended. The maximum period of employment as an Associate is five (5) years. The Associateship is offered to an outstanding candidate with a PhD in Astronomy, Physics or a closely related field of Engineering. Applicants must have received their degree no more than five years before assuming the Associateship. Candidates who will complete all of the requirements for their degree within six months of assuming the Associateship may also be considered. Applications should be made by 31 January 2009, via the process described in the poster for competition 40-08-38 at the above noted URL address. Please note that a CV, cover letter, research proposal, publication list, and at least two reference letters must be attached to your application. For further information about the facilities and research programmes at HIA contact [jean-pierre.veran@nrc-cnrc.gc.ca](mailto:jean-pierre.veran@nrc-cnrc.gc.ca). A starting date of mid 2009 is envisaged. NRC is an equal opportunity employer. Vous devez obtenir ces renseignements en français au site web indiqué ci-haut. No benefits information has been provided by the employer.

No. 25376  
Cometary Science - Astrobiology Postdoctoral Fellow  
INSTITUTE FOR ASTRONOMY - UNIVERSITY OF HAWAII  
2680 Woodlawn Drive  
Honolulu, 96822 96822  
USA  
Tel: +1-808-956-4644  
FAX: +1-808-956-4644  
URL1: [www.ifa.hawaii.edu/UHNAI](http://www.ifa.hawaii.edu/UHNAI) (UH NASA Astrobiology Institute)  
Email Submission Address: [pbh@ifa.hawaii.edu](mailto:pbh@ifa.hawaii.edu)  
Email Inquiries: [amech@ifa.hawaii.edu](mailto:amech@ifa.hawaii.edu)

Attention: *Karen Ehrhorn, Director of Administration*  
The Institute for Astronomy (IFA) and the University of Hawaii's NASA Astrobiology Institute lead team (see <http://www.ifa.hawaii.edu/UHNAI/>) invites applications for one, possibly two Postdoctoral Fellows with interests in the area of small icy body observations. The Fellowship will be available in early 2009 upon availability of funds. The Fellowship is for three years assuming satisfactory progress and continued availability of funds. Fellows will receive a stipend of approximately \$4,800 per month, a small relocation allowance and basic research costs. The IFA lead team maintains an innovative and multi-disciplinary research environment linking astronomical, biological, microbiological, chemical, and geological sciences to investigate the origin, history, distribution and role of water as it relates to life in the universe. The program centers around interactions with an interdisciplinary group of postdoctoral fellows. We are seeking individuals to participate in one or more of the following research areas: 1) observation, modeling, and in-situ exploration of the physical properties of main belt comets; 2) observation and modeling of the properties of distant comets and Kuiper belt objects; 3) observation of the chemical composition of comets at sub-mm and radio wavelengths. Minimum qualifications include a Ph.D. in astronomy or a related field, a record of research in small body solar system science as demonstrated by publications, good computer and software skills, and expertise in optical, IR, or sub-mm astronomy or thermal modeling of small bodies. Desirable qualifications include experience in working with large databases, experience working with spacecraft data, or instrumentation. Education and public outreach is an integral part of the Astrobiology program and qualifications with or interest in E/PO will be considered positively in an application. Questions about the small icy bodies projects may be directed to: Dr. Karen J. Meech or David Jewitt by email ([meech@ifa.hawaii.edu](mailto:meech@ifa.hawaii.edu), [jewitt@ifa.hawaii.edu](mailto:jewitt@ifa.hawaii.edu)). Questions about the UH Astrobiology lead team's program may be directed to Dr. K. J. Meech ([meech@ifa.hawaii.edu](mailto:meech@ifa.hawaii.edu)). To Apply, please submit the following:  
\* Contact information - name, email, phone/s, fax, address. \* Current position and location \* Date of Ph.D. and where and what field \* Date available if selected for Fellowship. \* If non-US citizen, visa status (note: funding only allows support for fellows on J1-visas) \* Current CV and Bibliography \* Letters of recommendation - Please arrange to have 3 letters of recommendation sent separately. This is a stipend position - no benefits are provided. However, the fellowship level has been set high enough to cover medical benefits which run \$250+ per month (depending on the plan selected).

No. 25377  
Postdoctoral Fellowship in CMB Research  
MAX-PLANCK-INSTITUTE FOR ASTROPHYSICS  
Hans-Kopfermann-Str. 1  
Germany  
Tel:  
URL1: <http://www.mpa-garching.mpg.de> (Max-Planck-Institute for Astrophysics)  
URL2: <http://planck.garching.mpg.de> (MPA PLANCK Activities)  
Email Submission Address: [enslin@mpa-garching.mpg.de](mailto:enslin@mpa-garching.mpg.de)  
Email Inquiries: [enslin@mpa-garching.mpg.de](mailto:enslin@mpa-garching.mpg.de)

Attention: *Torsten Enßlin, Dr.*  
The Max-Planck-Institut für Astrophysik (MPA) in Garching has developed scientific analysis infrastructure for the Planck-Surveyor Mission, ESA's next-generation satellite to map the Cosmic Microwave Background (CMB) which is scheduled for launch in early 2009.  
The MPA Planck Analysis Center (MPAC) has produced software infrastructure for mission simulation (Level-5) and for the data and process logistics of the scientific data-processing (the IDIS Process Coordinator, a database-interfaced workflow engine). In order to make full use of our software expertise for the scientific exploitation of Planck, we are looking for a professional CMB scientist with an outstanding research profile and with interest in using our data-analysis infrastructure. This scientist will participate in the construction and use of scientific pipelines for Planck, in the development and deployment of additional infrastructure features, and in interfacing the development team with the international user community. He/she will be fully embedded both in a versatile software team and in the stimulating scientific environment of the institute, and will be strongly encouraged to take advantage of this opportunity to develop new data analysis techniques for CMB research. The position is available from April 2009 for two years, with a possibility of a one year extension. Salaries are paid at German civil service rates (gross annual pre-tax income including health insurance contributions and pension) and are fully tax deductible at MPA.  
Interested scientists are invited to apply electronically to Dr. Torsten Enßlin (email: [enslin@mpa-garching.mpg.de](mailto:enslin@mpa-garching.mpg.de)) and to contact him for further information. Candidates should send a full curriculum vitae, a publication list and a summary of current research interests. No further hard copy of the electronically submitted documents will be needed. Applications will be accepted until the post is filled. Candidates should also arrange for three reference letters (electronic submission as PDF preferred) to the same address within two weeks after the application. The MPA is actively committed to equal opportunity in employment.  
Detailed information on the scientific environment at MPA can be found under <http://www.mpa-garching.mpg.de>, and on MPA Planck activities under <http://planck.mpa-garching.mpg.de>.

No. 25378  
Low Mass and Pre-Main Sequence Stars and Planets  
INSTITUTE FOR ASTROPHYSICS GÖTTINGEN  
Institut für Astrophysik  
Friedrich-Hund-Platz 1  
Göttingen, D 37077  
Germany

Tel: +49 551 3913625  
FAX: +49 551 395043  
URL1: <http://www.astro.physik.uni-goettingen.de/> (Institute Homepage)  
URL2: <http://www.astro.physik.uni-goettingen.de/~reiners/reiners.htm> (Homepage Research Group)  
URL3: <http://www.hs.uni-hannover.de/~gk/index.html> (Homepage Research Teaching Group)  
Email Submission Address: [Ansgar.Reiners@phys.uni-goettingen.de](mailto:Ansgar.Reiners@phys.uni-goettingen.de)  
Attention: *Ansgar Reiners*

The Institute for Astrophysics at the Georg-August-University of Göttingen, Germany, invites applications for several postdoctoral positions. The successful candidates will participate in research activities embedded in the Emmy Noether Group on "Magnetic Activity from Stars to Planets" and the Research Training Group on "Extrasolar Planets and their Host Stars". Applicants should have worked on a research area closely related to these fields. Expertise in spectroscopy and photometry of pre-main sequence stars, low-mass stars, or brown dwarfs is highly desired. The appointments will be for two years, they include funds for publications and travel. The salary will be according to the German postdoctoral standards (TV-L). The Georg-August-University is an equal opportunity employer. Applications from women and minorities are particularly welcome. Applications from challenged persons will be preferred at equivalent qualification. Candidates should send a curriculum vitae, a publication list, a description of research interests and plans. They should also arrange for at least two letters of recommendation. Please send only copies of your documents (no originals). We will not be able to send back your application and all documents will be destroyed after 3 months. Benefits are included according to German standards. Medical and dental insurance, maternity leave, retirement benefits etc. are included. Special regulations for reimbursement of retirement benefits for non-German employees apply.

No. 25379  
Postdoctoral position in IR Interferometry  
MAX-PLANCK INSTITUTE FOR RADIO ASTRONOMY  
Auf dem Hügel 69  
Bonn, D- 53121  
Germany

Tel: +49-228-525-243  
FAX: +49-228-525-437  
URL1: <http://www.mpifr-bonn.mpg.de/div/ir-interferometry>  
Email Submission Address: [weigelt@mpifr.de](mailto:weigelt@mpifr.de)  
Email Inquiries: [weigelt@mpifr.de](mailto:weigelt@mpifr.de)

Attention: *Gerd Weigelt, Prof.*  
Applications are invited for a postdoctoral position in the Infrared Interferometry Group of the Max-Planck Institute for Radio Astronomy in Bonn (see <http://www.mpifr-bonn.mpg.de/div/ir-interferometry>). Preference will be given to applicants with experience in one of the following areas: young stellar objects, active galactic nuclei, radiative transfer modeling, or infrared interferometry. Successful applicants will be expected to participate in interferometric observations and their interpretations, or in instrumentation projects (in particular, science software development for the VLTI-MATISSE instrument). The position offers excellent opportunities for high-resolution studies using the VLT Interferometer. Since our group is a member of the international VLT I AMBER and the LBT LINC-NIRVANA consortia, we own both VLTI and LBT Guaranteed Observing Time. The appointment is initially for two years and is renewable for up to six years. Applicants should submit a curriculum vitae, list of publications, and brief description of research interests, and arrange for one letter of recommendation to be emailed to [weigelt@mpifr.de](mailto:weigelt@mpifr.de). The review of applications will begin on 10 February 2009 and will continue until the position is filled. The Max-Planck Society is an equal-opportunity employer and aims to employ more disabled people. Applications from disabled persons are, therefore, particularly welcome. No benefits information has been provided by the employer.

No. 25380  
Support Scientist for the European VLBI Network Correlator at JIVE  
JOINT INSTITUTE FOR VLBI IN EUROPE (JIVE)  
Postbus 2  
the Netherlands

Tel: +31 (0)521 595-100  
FAX: +31 (0)521 597-332  
URL1: [www.jive.nl](http://www.jive.nl) (JIVE home page)  
URL2: [www.evlbi.org](http://www.evlbi.org) (EVN home page)  
URL3: [www.jive.nl/institute/jobs.html](http://www.jive.nl/institute/jobs.html) (more complete job description)  
Email Submission Address: [pers@nrc.nl](mailto:pers@nrc.nl)  
Email Inquiries: [camobell@jive.nl](mailto:camobell@jive.nl)

Attention: *Ms. D. Verweij*  
The Joint Institute for VLBI in Europe (JIVE) operates the 16-station/Gbps MkIV EVN data processor (correlator) to support astronomical observations made with the European VLBI Network (EVN). The EVN is often used in conjunction with the MERLIN Interferometer in the UK and the VLBA in the US. JIVE is actively developing e-VLBI techniques, and is pursuing significantly increased correlator capabilities to support

the science goals of the EVN2015 document. JIVE is located in Dwingeloo, the Netherlands, at the headquarters of ASTRON, which is our host institute. Several Dutch universities are within easy reach, and interaction with other radio astronomy institutes throughout Europe provides for a vibrant scientific atmosphere. We invite applications for the position of JIVE Support Scientist, becoming available in early 2009. This position has a 50-50 split between support duties and the appointee's own astronomical research. Support responsibilities include assisting EVN users to schedule and analyze VLBI experiments, monitoring network performance through dedicated test observations, overseeing the correlation of experiments, and testing new network/correlator features and capabilities. The position may also involve other local-service collateral duties. The position requires a Ph.D. in astronomy or other relevant field, and a thorough knowledge of VLBI techniques. Applicants of any nationality are eligible to apply. A good command of written and spoken English is essential. The appointment is offered for one year in the first instance with the possibility of an extension up to a total of three years. The position carries a competitive salary plus an excellent package of benefits. Applications should include a CV and list of publications, together with three letters of reference, which may be sent separately. All application materials should arrive by 2 February 2009, mentioning ref.No JIVE2009/01. Responses are preferred by e-mail. Relocation expenses and assistance finding accommodation upon arrival are provided. <http://www.astron.nl/netherlands/> introduces various aspects of moving to and life in the Netherlands. Employees participate in a collective health insurance system. Pension contributions are made.

**No. 25381**  
**Post-doctoral position in astrophysics at Universite Laval**  
**UNIVERSITE LAVAL**  
**Pavillon Alexandre-Vachon**  
**1045 avenue de la médecine**  
**Québec City, Québec G1V 0A6**  
**Canada**  
**Tel: (418) 656 2131 x-5641**  
**FAX: (418) 656 2040**  
**URL1: [www.edzr.phy.ulaval.ca/index.html](http://www.edzr.phy.ulaval.ca/index.html) (Astrophysics Research Group, Laval University)**  
**URL2: [www.crao-astron.ca](http://www.crao-astron.ca) (Centre de recherche en astrophysique du Québec)**  
**Email Submission Address: [ldrissen@phy.ulaval.ca](mailto:ldrissen@phy.ulaval.ca)**  
**Email Inquiries: [ldrissen@phy.ulaval.ca](mailto:ldrissen@phy.ulaval.ca)**

**Attention: Dr. Laurent Drissen, Director, Astrophysics Research Group**  
The Centre for Research in Astrophysics of Quebec (CRAQ) invites applications for a two-year (with a possible one-year extension) post-doctoral position starting in the summer of 2009 at Université Laval (Quebec City, Canada). The CRAQ ([www.crao-astron.ca](http://www.crao-astron.ca)) is a collaborative research centre whose members include astrophysicists from Université Laval, Université de Montréal, and McGill University. The CRAQ oversees the best equipped university telescope in Canada, the 1.6-m Mont Mégantic telescope. The Laval Astrophysics group includes five active faculty members, whose interests include the interstellar medium of the Milky Way, the properties of massive stars, the formation and evolution of galaxies, the intergalactic medium, and astrometric instrumentation ([www.edzr.phy.ulaval.ca/index.html](http://www.edzr.phy.ulaval.ca/index.html)). Its members have access to the new 12 000-processor CLUMEQ supercomputer for numerical simulations. Applicants, who are expected to hold a recent (less than 3 years) Ph. D. in astrophysics, should submit, before March 15 2009, a curriculum vitae, a list of publications, a statement of research interests, and contact information of two referees to Dr. Laurent Drissen ([ldrissen@phy.ulaval.ca](mailto:ldrissen@phy.ulaval.ca)). No benefits information has been provided by the employer.

**No. 25382**  
**Postdoctoral Research Associate in Cosmology**  
**BROOKHAVEN NATIONAL LABORATORY**  
**Tel:**  
**URL1: [www.bnl.gov](http://www.bnl.gov)**  
**Email Inquiries: [anon](mailto:anon)**

**Attention: Dr. Thomas Ludlam**  
The Department of Physics at Brookhaven National Laboratory invites applications for a postdoctoral position as Research Associate in astrophysics/cosmology with the scope of the position being determined by the qualifications of the applicant. Brookhaven has a long tradition of strength in particle and nuclear physics resulting in a world-class intellectual environment. A strong program in cosmology focusing on the exploration of dark energy and other related fundamental physical phenomena is being developed, and will complement the current research. The program will include near-term cosmology projects, as well as the Large Synoptic Survey Telescope (LSST). The first of three planned new hires was made in Spring 2008. Brookhaven is a member of the LSST collaboration and is the center for developing the CCD array for the telescope. The Laboratory has extensive large-scale computing and technical resources. We seek candidates of exceptional ability with the potential for original and collaborative research. The successful applicant will work with large-scale cosmological surveys (optical/infrared) primarily focused on understanding the origin of the accelerated expansion of the universe. A strong background in cosmology is highly desirable. Applications should be received by February 1, 2009 or sooner to be given fullest consideration. However, applications will be accepted until the position is filled. The appointment will begin in September 2009, or sooner. Interested applicants should send a letter (pdf format), curriculum vitae, publication list, and a brief description of research interests. Applicants should also include at least three references, including email addresses, at the bottom of their CV. Candidates must have a Ph.D. or equivalent degree in physics or astronomy. Brookhaven is an equal opportunity employer committed to workforce diversity. Please apply for this position at <http://www.bnl.gov>, click on Job Opportunities and then Search Job List and apply to Job ID #14559. No benefits information has been provided by the employer.

**No. 25384**  
**Postdoctoral fellowship in exoplanet research/Pan-STARRS-1 outer solar system science**  
**SMITHSONIAN ASTROPHYSICAL OBSERVATORY**  
**Tel:**  
**Email Submission Address: [mholman@cfah.harvard.edu](mailto:mholman@cfah.harvard.edu)**  
**Email Inquiries: [mholman@cfah.harvard.edu](mailto:mholman@cfah.harvard.edu)**

**Attention: Matthew J. Holman**  
The Smithsonian Astrophysical Observatory at the Harvard-Smithsonian Center for Astrophysics (CfA) invites applications for a postdoctoral research position to work with Dr. Matthew Holman. Possible research areas include: (1) outer solar system investigations with Pan-STARRS-1; (2) characterization of transiting extrasolar planets with EPOXI, Kepler, and ground-based telescopes. Candidates must have a Ph.D. in astronomy, physics, or equivalent, by the date of appointment. Applicants with previous experience in solar system dynamics, ground-based searches for trans-neptunian objects, or photometric studies of extrasolar planetary systems are encouraged to apply. The appointment is initially for one year, renewable for up to two additional years, and can begin as early as April 2009. The stipend for 2009 is \$54,000 with health insurance. Interested candidates should submit a cover letter, curriculum vitae, list of publications, and a statement of research interests and qualifications (in PDF format), and should arrange for three letters of recommendation to be sent by email to [mholman@cfah.harvard.edu](mailto:mholman@cfah.harvard.edu). Applications that are complete by January 31, 2009 will receive full consideration. The Smithsonian Astrophysical Observatory is an Equal Opportunity / Affirmative Action Employer.

**No. 25387**  
**Postdoctoral Research with the Wide-field Infrared Survey Explorer**  
**JET PROPULSION LABORATORY (JPL)**  
**4800 Oak Grove Drive**  
**MS 169-327**  
**Pasadena, CA 91109-8099**  
**USA**  
**Tel: +1-818-354-4211**  
**Email Submission Address: [Peter.R.Eisenhardt@jpl.nasa.gov](mailto:Peter.R.Eisenhardt@jpl.nasa.gov)**

**Attention: Dr. Peter Eisenhardt**  
The NASA Postdoctoral Program (NPP) at the Jet Propulsion Laboratory (JPL) invites applications for postdoctoral fellowship positions for the Wide-field Infrared Survey Explorer (WISE) project. WISE will survey the entire sky with 500 times better sensitivity than IRAS at 12 and 23 microns, and 500,000 times better sensitivity than COBE at 3.3 and 4.7 microns. WISE will launch in late 2009, surveying the sky in 6 months after a one month checkout, and finding objects ranging from near-Earth asteroids to optically invisible quasars. Other objectives include finding the nearest and coolest brown dwarfs, massive galaxy clusters to redshift 1, and the most extreme infrared luminous galaxies in the universe. The successful candidates will use the WISE dataset, complemented by other large datasets, to identify near-Earth asteroids, cool brown dwarfs, distant galaxy clusters, ultraluminous infrared galaxies, and very red quasars (either due to obscuration or extreme redshift), and follow them up using facilities such as Palomar, Keck, Spitzer, Chandra, and HST. JPL has a share of Palomar 200 inch time. Depending on the research topic, Dr. Peter Eisenhardt or Dr. Amy Mainzer, respectively project scientist and deputy project scientist for WISE, will serve as JPL postdoctoral advisor to the selected candidate(s). The appointee will be guided by the JPL advisor to ensure that the research work will result in publications in the open literature. Candidates should have a recent Ph.D. in physics or astronomy with a strong background in small solar system bodies, brown dwarfs, ultraluminous infrared galaxies, quasars, or galaxy clusters. Experience with large astronomical databases and follow-up campaigns would be helpful. The appointment is contingent upon evidence of completion of a Ph.D. The annual starting salary for a recent Ph.D. is US\$52,000 and can vary somewhat according to the applicant's qualifications. Postdoctoral fellowship positions are awarded initially for a one-year period and may be renewed in one-year increments for a maximum of two additional years. Applicants must be approved by Drs. Mainzer and Eisenhardt prior to submitting an official application to the NPP. Applicants must submit a research proposal on a topic of his/her choice within these areas for approval by Dr. Mainzer for asteroids or brown dwarfs, or Dr. Eisenhardt for extragalactic topics. To be an approved applicant, please send your research proposal, curriculum vitae, and a list of three references (with telephone numbers and postal and e-mail addresses) by February 8, 2009 to Dr. Peter Eisenhardt Jet Propulsion Laboratory, MS 169-327 4800 Oak Grove Drive, Pasadena CA 91109-8099, USA Tel: +1-818-354-4211 or E-mail: Peter.R.Eisenhardt@jpl.nasa.gov Approved applicants must submit his/her official application via the NPP website at <http://nasa.orau.gov/postdoc/application/index.htm>. Reference RO# 18372: <https://www.orau.gov/nasa/catalog/Listing.aspx?ref=18372>. The NPP has further eligibility requirements. Please review the guidelines prior to submitting your application. NPP Application Deadline is March 1, 2009. No benefits information has been provided by the employer.

**No. 25388**  
**RESEARCH ASSOCIATE**  
**HARVARD UNIVERSITY**  
**Tel:**

**Attention: [dasselov@cfah.harvard.edu](mailto:dasselov@cfah.harvard.edu)**  
Research Associate position in exoplanet spectroscopy and geochemistry - Harvard University, Harvard College Observatory  
Our group is engaged in theoretical research on characterizing the surface and atmospheric conditions on Earth-like planets orbiting other stars. A special effort is devoted to interpretation of observations with current and upcoming space and ground-based projects. The emerging domain of extrasolar planet detection and characterization offers an extraordinary opportunity to combine research in astrophysics, chemistry, biology and geophysics into a new and exciting interdisciplinary approach to understand our place in the universe. We invite applicants who will compute emergent spectra of Earth-like planets with a diverse set of environments and orbital characteristics. The successful applicant will possess the tools for such computations and participate in combining them with our existing interior planetary models and models of geochemical cycles. The successful applicant will work closely with Dimitar Sasselov and other members of the Department of Astronomy as well as with faculty in the Harvard Earth and Planetary Sciences Department.  
Each applicant should email a statement of at most 3 pages explaining her or his interest and qualifications for the position, a current CV with a list of publications, and the names of 3 references. This appointment is for one year with renewals for a second and third year likely, contingent upon satisfactory progress and funding. The start date is April 1, 2009. The salary is competitive; health benefits are provided.  
Harvard University is an Equal Opportunity/Affirmative Action Employer. Women and members of minority groups are especially welcome to apply.  
Email inquiries and application materials should be sent to [dasselov@cfah.harvard.edu](mailto:dasselov@cfah.harvard.edu).  
No benefits information has been provided by the employer.

**No. 25389**  
**Post-doctoral Fellow in Planetary Science**  
**THE UNIVERSITY OF HONG KONG**  
**Tel:**  
**FAX: 2540 6735**  
**Email Submission Address: [senrapnt@hkucc.hku.hk](mailto:senrapnt@hkucc.hku.hk)**  
**Attention: The Appointments Unit (Senior)**

Founded in 1911, The University of Hong Kong is committed to the highest international standards of excellence in teaching and research, and has been at the international forefront of academic scholarship for many years. Of a number of recent indicators of the University's performance, one is its ranking at 26 among the top 200 universities in the world by the UK's Times Higher Education Supplement. The University has a comprehensive range of study programmes and research disciplines, with 20,000 undergraduates and postgraduate students from 50 countries, and a complement of 1,200 academic members of staff, many of whom are internationally renowned.  
Post-doctoral Fellow in Planetary Science (Ref.: RF-2008/2009-449)  
Applications are invited for appointment as Post-doctoral Fellow in Planetary Science in the Department of Earth Sciences, from as soon as possible for two years, with the possibility of renewal subject to funding availability and satisfactory performance.  
Applicants should have a Ph.D. degree or equivalent before assumption of duty, and expertise in planetary dynamics and numerical integration techniques is preferred. The appointee will collaborate with Dr. Lee Man Hoi on research related to the origin and dynamical evolution of our Solar System, its satellites, and extrasolar planetary systems. Further details about the research programs can be obtained at <http://web.hku.hk/~mhlee/> or by e-mail at [mhlee@hku.hk](mailto:mhlee@hku.hk).  
The University has related research groups in planetary science, astrophysics, astrobiology, and early Earth in the Department of Earth Sciences, Department of Physics and the School of Biological Sciences. A highly competitive salary commensurate with qualifications and experience will be offered. Annual leave and medical/dental benefits will be provided.  
For immediate consideration, please send a completed application form, CV, publication list, summary of research accomplishments, interests, plans, and three recommendation letters, by e-mail in pdf format to Dr. Lee Man Hoi (e-mail: [mhlee@hku.hk](mailto:mhlee@hku.hk)), Department of Earth Sciences, with the above reference number in the subject line.  
Further particulars and application forms (152/708) can be obtained at <https://www.hku.hk/appoint/> by fax (2540 6735 or 2559 2058); e-mail ([senrapnt@hkucc.hku.hk](mailto:senrapnt@hkucc.hku.hk)); in person or by writing to the Appointments Unit (Senior), Human Resources Section, Registry, Room 10-01, Knowles Building, The University of Hong Kong, Pokfulam Road, Hong Kong. Review of applications will continue until January 31, 2009. Candidates who are not contacted within 3 months of the date of their applications may consider their applications unsuccessful.  
The University is an equal opportunity employer and is committed to a No-Smoking Policy.  
A highly competitive salary commensurate with qualifications and experience will be provided. Annual leave and medical/dental benefits will be provided.

**No. 25390**  
**Astrophysics**  
**ARGELÄNDER-INSTITUT FUER ASTRONOMIE**  
**Auf dem Huegel 71**  
**Bonn, NRW 53121**  
**Germany**  
**Tel:**

**URL1: <http://www.astr.uni-bonn.de/~webalib/german/index.php> (Argelander-Institut fuer Astronomie)**  
**Email Submission Address: [adanne@astro.uni-bonn.de](mailto:adanne@astro.uni-bonn.de)**  
**Email Inquiries: [pluenger@astro.uni-bonn.de](mailto:pluenger@astro.uni-bonn.de)**  
**Attention: Mrs Elisabeth Danne, Secretary**  
The Argelander-Institut fuer Astronomie (AIfA) at the University of Bonn invites applications for up to five Argelander Fellowships, a newly launched international fellowship program. The AIfA currently hosts about 80 scientific staff members, postdocs, fellows and PhD students and constitutes, together with the neighboring Max-Planck Institut fuer Radioastronomie, one of the major astronomical centers in Germany. The large fraction of foreign researchers and students implies that the working language at the institute is English.  
Successful applicants are expected to conduct their research in fields hosted at the AIfA, including radio, (sub-)mm, optical and X-ray astronomy, interstellar medium, astrophysics of galaxies, dynamics of stellar systems, stellar populations, observational cosmology, structure formation and galaxy evolution, gravitational lensing and wide-field imaging. Candidates interested in stellar astrophysics are particularly encouraged to apply to work in the newly installed research group of Norbert Langer.  
Applicants should have a PhD in astrophysics or a closely related field. The appointment will initially be for two years, with a possible extension for a further year, depending on funding and progress.

Interested candidates should send an application, together with a CV, publication list and a summary of current research interests in form of a single pdf file, and arrange for three letters of reference to be sent before January 31, 2009, to edanne@astro.uni-bonn.de.  
No benefits information has been provided by the employer.

**No. 25392**  
**Schroedinger Fellowship in non-thermal X-ray astronomy**  
**DUBLIN INSTITUTE FOR ADVANCED STUDIES**  
Dublin Institute for Advanced Studies  
10 Burlington Road  
Dublin 4, NA  
Ireland  
Tel: +353-1-6140122  
FAX: +353-1-6680561  
Email Submission Address: [registratoroffice@admin.dias.ie](mailto:registratoroffice@admin.dias.ie)  
Email Inquiries: [felix.aharonian@dias.ie](mailto:felix.aharonian@dias.ie)

Attention: Mary Brennan, Administrator  
The Dublin Institute for Advanced Studies wishes to appoint a Schroedinger Fellow in the School of Cosmic Physics to work with Professor Felix Aharonian on the interface between high-energy non-thermal astrophysics and X-ray astronomy. This work will be carried out in close collaboration with the High Energy Astrophysics group of the Japanese Institute of Space and Astronautical Science/JAXA team.  
For further information contact [felix.aharonian@dias.ie](mailto:felix.aharonian@dias.ie). The fellowship will be for five years and is available from late 2009. The Institute is an equal opportunity employer.  
Applications should include a CV, publication list, short research plan, and the contact details of two referees should be sent, ideally as a single PDF file by e-mail to [registratoroffice@admin.dias.ie](mailto:registratoroffice@admin.dias.ie) (with a cc to [felix.aharonian@dias.ie](mailto:felix.aharonian@dias.ie)) quoting "scp0901 X-ray fellowship" in the subject field, to arrive before 31 March 2009. The position will remain open until filled.  
The fellowship is offered subject to the general Irish public service regulations and employment legislation, including pension provisions.

**No. 25393**  
**Postdoctoral position in infrared-submillimeter extragalactic astronomy**  
**IAP - INSTITUT D'ASTROPHYSIQUE DE PARIS**  
98 bis, boulevard Arago  
France  
Tel:  
URL1: <http://www.iap.fr/> (Institute home page)  
URL2: [http://www.iap.fr/~gsm/Int/Gen\\_Programmes.shtml](http://www.iap.fr/~gsm/Int/Gen_Programmes.shtml) (abstracts of Herschel open-time and guaranteed-time key programs)  
Email Submission Address: [nicolas.lacaille@iaa.es](mailto:nicolas.lacaille@iaa.es), [toussaint@iap.fr](mailto:toussaint@iap.fr), [charlot@iap.fr](mailto:charlot@iap.fr)

Attention: Helene Roussel, Dr.  
The Institut d'Astrophysique de Paris invites applications for a postdoctoral position to study the warm/cold interstellar medium in nearby galaxies, using observations of the Herschel Space Telescope, to be launched April 2009. The successful candidate will work with Drs. Laurent Vigroux, Helene Roussel and Stephane Charlot on Herschel open-time and guaranteed-time key programs devoted to local galaxies (see abstracts at URL2 above), and in particular KINGFISH. The KINGFISH consortium groups 28 members - both observers and modelers of physical conditions in the interstellar medium - in 15 institutes, led by Prof. Robert Kennicutt. The postdoctoral scholar will be strongly encouraged to also pursue his/her own projects on related topics and submit proposals for Herschel and other observing facilities.  
The Institut d'Astrophysique de Paris hosts an active research group on galaxy evolution, with renowned expertise on stellar population models coupled with dust and gas. It is closely interacting with the PACS and SPIRE Instrument Control Centers, and the Herschel scientific team in the Service d'Astrophysique at CEA/Saclay.  
Prospective applicants are encouraged to contact us by e-mail for further information. The position is expected to start in the early fall of 2009. It is funded for two years, and may be renewed for a third year.  
Applicants should send a CV, a publication list and a brief research statement, either electronically or by regular mail, and arrange for three letters of reference to reach us by March 15, 2009. Late applications will continue to receive attention until the position is filled.  
Full social benefits are automatically associated with the position.

**No. 25394**  
**Postdoctoral Positions in Stellar Astrophysics**  
**THE MILKY WAY MILLENNIUM NUCLEUS, PUC-CHILE AND UNIVERSIDAD DE VALPARAISO**  
**Departamento de Astronomia y Astrofisica**  
Av. Vicuna Mackenna 4860  
Santiago, RM 782-0436  
Chile  
Tel: 56-2-354-7253  
FAX: 56-2-354-4948  
URL1: <http://www2.astro.puc.cl/VVV/> (Vista Variables in the Via Lactea (VVV) ESO Public Survey)  
URL2: [http://www.astro.puc.cl/~gsm/Int/Gen\\_Programmes.shtml](http://www.astro.puc.cl/~gsm/Int/Gen_Programmes.shtml)  
URL3: <http://www.ifa.uy.cl/> (Universidad de Valparaiso, Departamento de Fisica y Astronomia)  
Email Submission Address: [mzoccali@astro.puc.cl](mailto:mzoccali@astro.puc.cl)  
Email Inquiries: [manuel@astro.puc.cl](mailto:manuel@astro.puc.cl)

Attention: Manuela Zoccali, Professor  
The Milky Way Millennium Nucleus of the Pontificia Universidad Catolica de Chile (PUC) and Universidad de Valparaiso (UV) invites applications for up to three postdoctoral fellowship appointments in the area of Stellar Astrophysics. Two fellows will be based at the Departamento de Astronomia y Astrofisica at PUC, in Santiago, while the third fellow will be based at the Departamento de Fisica y Astronomia de UV, in Valparaiso. The initial appointment will be for a period of one year, with the possibility of an extension for another two years, depending on performance. The starting date should be September 2009, but earlier appointments may also be considered.  
These positions are intended for enthusiastic young scientists with a strong interest in carrying out cutting-edge research using the VVV (VISTA Variables in the Via Lactea) ESO Public Survey ([seehttp://www2.astro.puc.cl/VVV/](http://www2.astro.puc.cl/VVV/)). The focus of their research should be in one of the main areas of activity of the Milky Way Millennium Nucleus members (Marco Catelan, PI; Dante Minniti, Deputy PI; Manuela Zoccali; Andres Jordan; and Jura Borissova), which include stellar variability in globular clusters and field populations in the Local Group, high-resolution spectroscopy, embedded star clusters in the Milky Way, and near-IR stellar astronomy.  
Candidates should have a Ph.D. in Astronomy, Astrophysics, or related disciplines. A promising track record in scientific research in the areas listed above is also required. Candidates with prior working experience with near-IR astronomy and stellar variability are especially encouraged to apply.  
While the candidates will be expected to dedicate a significant fraction of their time to supporting the activities of the Milky Way Millennium Nucleus, a significant amount of time will also be provided for them to carry out their own research projects. As members of the Chilean astronomical community, the successful applicants will have access to up to 10% of the observing time in all the main international observatories installed in Chile, including CTIO, La Silla, Cerro Paranal, Cerro Pachon, and Las Campanas. The candidates may thus benefit from access to such world-class facilities as the VLT's, Gemini South, Magellan I and II, SOAR, NTT, and the upcoming international TST survey telescopes, along with many other smaller telescopes.  
Applicants should send a cover letter, CV, list of publications, and a brief description of research interests and accomplishments to the email address listed below. They should arrange for three letters of recommendation to be sent to the same address. Candidates should express their preference to be based at PUC or UV in their cover letter. The application materials should be sent by email to Prof. Manuela Zoccali ([mzoccali@astro.puc.cl](mailto:mzoccali@astro.puc.cl)).  
Full consideration will be given to applications received by February 28th, 2009. However, late applications may also be considered, until the positions are filled.  
No benefits information has been provided by the employer.

**No. 25395**  
**Post-doctoral Positions in Star Formation**  
**CEA SACLAY**  
Orme des Merisiers - Ba\* 709  
CEA Saclay  
Gif-sur-Yvette cedex, F 91191  
FRANCE  
Tel: +33 1 69 08 92 55  
FAX: +33 1 69 08 65 77  
URL1: <http://www.obs.u-bordeaux1.fr/radio/SBontemps/probes/> (Webpage of the PROBeS research program)  
URL2: <http://leiderique.motte.fr/pic/> (Webpage of Dr Frederique Motte)  
Email Submission Address: [leiderique.motte@cea.fr](mailto:leiderique.motte@cea.fr)  
Email Inquiries: [leiderique.motte@cea.fr](mailto:leiderique.motte@cea.fr)

Attention: Frederique Motte, Dr.  
In the context of PROBeS, a recently funded research program by the French National Research Agency, we open three post-doctoral positions in French institutes which are involved in the Herschel key programs dedicated to high-mass star formation.  
Applications are here invited for one postdoctoral position in the Star Formation Group of the "Service d'Astrophysique" (Sap/AIM) at CEA Saclay, France. The Sap/AIM is a major space astrophysics laboratory located 20 km south-west of Paris. It has recently been involved in the development of the two far-infrared imaging instruments (SPIRE and PACS) on the Herschel Space Observatory to be launched by ESA in April 2009. The star formation group has a long experience in infrared and (sub)millimeter astronomy dedicated to the earliest phases of star formation including the census of (high-mass) star-formation sites, the origin of the stellar IMF, the characterization and evolution of protostellar objects. It is leading the Herschel guaranteed time key programs HOBSYs and Gould-Belt and participates into the Galactic plane surveys AtlasGal and Hi-GAL. The applicant will exploit the above large programs dedicated to high-mass star formation.  
The position is available for an initial period of two years. Applicants should have a PhD degree and a strong background in star formation and/or molecular cloud structure. Experience in large-scale surveys, spatial missions and/or (sub)millimeter observations will be an asset. Applications should include a CV, a list of publications, and a statement of research interests. The applicant should also arrange for three letters of reference to be sent independently.  
Full medical and dental insurance, maternity leave, and retirement plans are part of the benefits offered in the position.

**No. 25396**  
**Postdoctoral Position in Exoplanet Research**  
**PONTIFICIA UNIVERSIDAD CATOLICA DE CHILE**  
Tel:  
URL1: <http://www.cfa.harvard.edu/~gabekes/HIS/> (HAT-South page)  
URL2: <http://www.astro.puc.cl/> (Departamento de Astronomia y Astrofisica, Pontificia Universidad Catolica de Chile)  
Email Submission Address: [ajordan@astro.puc.cl](mailto:ajordan@astro.puc.cl)  
Email Inquiries: [ajordan@astro.puc.cl](mailto:ajordan@astro.puc.cl)

Attention: Prof. Andres Jordan  
The Departamento de Astronomia y Astrofisica (DAA) of the Pontificia Universidad Catolica de Chile invites applications for a postdoctoral fellow position in the area of Exoplanets. The successful applicant is expected to work on the HAT-South project, a transiting extrasolar planet search that involves a global network of small-sized telescopes spread over three sites: Chile, Namibia and Australia.  
The fellow would be part of an international team that consists of members from the DAA and the partner institutions: Harvard-Smithsonian Center for Astrophysics (CfA), Max Planck Institute for Astronomy, and the Australian National University, and would work closely with Prof. Andres Jordan at DAA and the HAT-South group at the CfA in the remote operation of the Chilean node, located in Las Campanas. The successful candidate would take part in many (but not necessarily all) aspects of the project, such as: overseeing Chilean operations, data flow and analysis, related software development, follow-up observations (photometry and spectroscopy), in addition time will be available for pursuit of scientific observations and analysis of data from existing satellite missions and ground based observatories in science areas related to HAT-South.  
Applicants should have a Ph.D. in Astronomy, Astrophysics, or related disciplines, and thorough experience with the Linux work environment. Expertise in one or more of the following areas is desirable: time-series and massive data analysis, observational astronomy (photometry, stellar spectroscopy), experience with several programming languages, shared code development, instrumentation skills, firm mathematical knowledge with focus on algorithms and statistics.  
While the fellow will be expected to dedicate a large fraction of her/his time to HAT-South, a significant amount of time will also be provided for independent research projects. As a member of the Chilean astronomical community, the successful applicant will have access to up to 10% of the observing time in all the main international observatories installed in Chile, and may thus benefit from access to such world-class facilities as, eg, the VLT's, Magellan and HARPS.  
A CV, list of publications, and a brief description of research interests and accomplishments should be submitted electronically to Prof. Andres Jordan ([ajordan@astro.puc.cl](mailto:ajordan@astro.puc.cl)). Applicants should additionally arrange for three letters of recommendation to be sent to the same address. For full consideration, applications should be received by February 28, 2009, but the search will continue until the position is filled. The appointment is for two years initially, with a possibility of extension based on performance and availability of funding, and may start as early as May 2009.  
No benefits information has been provided by the employer.

**No. 25398**  
**Postdoctoral Research Associate**  
**INSTITUTE FOR ASTROPHYSICAL RESEARCH**  
725 Commonwealth Ave.  
Room 514  
Boston, MA 02215  
USA  
Tel: 617 353 7412  
FAX: 617 358 2811  
Email Submission Address: [jackson@bu.edu](mailto:jackson@bu.edu)  
Email Inquiries: [jackson@bu.edu](mailto:jackson@bu.edu)

Attention: James Jackson, Department of Astronomy Chairman  
Applications are invited for a postdoctoral position in high-mass star formation and Galactic astronomy. Researchers interested in analyzing data on infrared dark clouds are especially encouraged to apply. Experience with radio, millimeter, and infrared observations and data analysis is beneficial, but not absolutely essential.  
The appointment is for two years with the possibility of renewal for an additional year. The start date is negotiable, but preferably September 1, 2009. Successful applicants must have a PhD in astronomy, physics, or a closely related field by the start date. To apply, please send a CV and a statement of research interests, and also arrange to have three letters of recommendation sent to the above address. Please contact [jackson@bu.edu](mailto:jackson@bu.edu) for additional information.  
Excellent benefits.

**No. 25399**  
**Postdoctoral Researcher - Space Radiation Laboratory**  
**CALIFORNIA INSTITUTE OF TECHNOLOGY (CALTECH)**  
1200 E. California Blvd.  
M/C 220-47  
Pasadena, CA 91125  
USA  
Tel:  
Email Submission Address: [nborg@srli.caltech.edu](mailto:nborg@srli.caltech.edu)  
Email Inquiries: [nborg@srli.caltech.edu](mailto:nborg@srli.caltech.edu)

Attention: Nina Borg  
The X-ray/gamma-ray group at Caltech has two postdoctoral research positions available to work on the Nuclear Spectroscopic Telescope Array (NuSTAR) hard X-ray focusing mission, which is scheduled for launch in 2011. The positions involve 1) testing and calibration of the NuSTAR focal plane detectors, and 2) development of instrument simulation and data analysis tools, with the specific duties dependent on the background of the applicant. In addition time will be available for pursuit of scientific observations and analysis of data from existing satellite missions and ground based observatories in science areas related to NuSTAR. The group has ongoing observational programs on Chandra as well as the Palomar and Keck telescopes, and postdoctoral researchers may apply for observing time on Caltech's optical facilities. These positions are currently available. Candidates must have a PhD in physics or astronomy, with experience in pulse counting detector and electronics systems, and/or in astrophysical data analysis and software development. To apply, send a cover letter, CV with publication list, and arrange for three letters of reference to be mailed to California Institute of Technology, attn: Ms. Nina Borg, 220-47 Caltech, Pasadena, CA

91125 or emailed to, nborg@srl.caltech.edu, no later than January 31, 2009. Caltech is an equal opportunity/affirmative action employer. Women, minorities, veterans, and disabled persons are encouraged to apply

No benefits information has been provided by the employer.

**No. 25402**  
**Jeremiah Horrocks Fellowship - Galaxy Formation and Evolution**  
**UNIVERSITY OF CENTRAL LANCASHIRE**  
**Centre for Astrophysics**  
**Preston, Lancashire PR1 2HE**  
**United Kingdom**

**Tel: +44 1772 892324**  
**FAX: +44 1772 892933**

**URL1: <http://www.star.uclan.ac.uk/jobs/Horrocks/> (Application Details)**  
**URL2: <http://www.uclan.ac.uk/infomation/services/jwark/apply.php> (Horrocks Institute / Centre for Astrophysics)**  
**URL3: <http://www.uclan.ac.uk/infomation/services/jwark/apply.php> (UCLAN Recruitment Site)**  
**Email Submission Address: [HumanResources@uclan.ac.uk](mailto:HumanResources@uclan.ac.uk)**  
**Email Inquiries: [bkjibson@uclan.ac.uk](mailto:bkjibson@uclan.ac.uk)**  
**Attention: Human Resources/446A-09-01**

To coincide with the opening of the new Jeremiah Horrocks Institute for Astrophysics & Supercomputing, the University of Central Lancashire is pleased to invite applications for the inaugural Jeremiah Horrocks Fellowship.  
To fill this 5-year Research Fellowship, we are seeking candidates with an excellent research record in areas related to theoretical and/or computational galaxy formation and evolution. The Horrocks Fellow will become an integral member of the Institute's rapidly-expanding Galaxy Evolution Group led by Professor Brad Gibson, the Chair in Theoretical Astrophysics. The Fellow will be joining a vibrant, supportive, collaborative, and extremely sociable, research institute. The successful candidate will have a PhD in physics, astronomy, or closely-related field, and a minimum of two years postdoctoral experience at the time of appointment.

Experience in the development or use of N-body/SPH/AMR codes and/or semi-analytic galaxy formation/chemical evolution models is highly desirable. The Fellow will be free to make extensive use of our suite of High Performance Computing Facilities, including our (i) current on-campus Shared Memory Facility; (ii) a new 500-1000 node cluster to be installed in 2009-10; and (iii) our Core Partner Share of COSMOS, the UK National Cosmology Supercomputer. The University is a partner in the Commonwealth Cosmology Initiative, in addition to SALT, the Southern African Large Telescope, providing direct partner access to a world-class 10-m telescope.

The Horrocks Fellowship is available from Autumn 2009, with the actual start-date negotiable, depending upon the successful candidate's availability. The appointment will be made at the University's Research Fellow Grade (GBP32k-38k), depending on experience; a generous benefits package and associated research/travel budget will be provided.

The closing date for the receipt of applications is 27 February 2009. Applicants should submit electronic copies of their CV, publication list, research interests & plans, and the contact details for three referees, along with the Application Form available from URL3 above; please quote reference number 446A-09-01 (Horrocks Fellow).  
The Horrocks Institute is comprised of nearly 40 staff and students, making it one of the largest in the UK. We are located on the University's main campus, on a pleasant site in the centre of Preston, England's newest city. Preston itself is nestled on the edge of the beautiful Ribble Valley and the Forest of Bowland Area of Outstanding Natural Beauty. The Lake District, Peak District, and Yorkshire Dales are all within an hour, and the city is surrounded by its own green spaces, as well as its vibrant pub and club scene. Both Manchester and Liverpool are within 45 minutes reach.

For further information, contact Prof Brad Gibson: [bkjibson@uclan.ac.uk](mailto:bkjibson@uclan.ac.uk)

**No. 25403**  
**Postdoctoral Research Associate**  
**UNIVERSITY OF CALIFORNIA, LOS ANGELES**  
**430 Portola Plaza**  
**Box 951547**  
**Los Angeles, CA 90095-1547**  
**United States**

**Tel: 310-206-3768**  
**FAX: 310-206-2096**

**URL1: <http://www.astro.ucla.edu/~aes> (Professor Shapley's Home Page)**  
**URL2: <http://www.astro.ucla.edu> (UCLA Astronomy Department Web Page)**  
**Email Submission Address: [aes@astro.ucla.edu](mailto:aes@astro.ucla.edu)**  
**Email Inquiries: [aes@astro.ucla.edu](mailto:aes@astro.ucla.edu)**

**Attention: Alice Shapley, Associate Professor**

Applications are invited for a postdoctoral position working with Professor Alice Shapley in the Department of Physics and Astronomy at UCLA on research related to the formation and evolution of galaxies. Of particular interest are applicants with optical and infrared observational extragalactic experience, or those with expertise in the comparison between observations and simulations of galaxy formation. Using the W.M. Keck 10-meter telescopes and other ground- and space-based facilities, Professor Shapley's group carries out imaging and spectroscopic observations of distant galaxies and their interaction with the intergalactic medium. Also of interest is the use of numerical simulations to gain insight into observations of high-redshift galaxies. Key aspects of this position entail collaborating with Professor Shapley on high-redshift galaxy science using current and future Keck instrumentation.

A PhD in astronomy/physics and previous experience in the area of observational extragalactic astronomy are preferable, though candidates with experience analyzing cosmological simulations are also of interest. The initial appointment is for two years, with the possibility of a third year, beginning Fall 2009.

The closing date for the receipt of applications is 02/15/2009. To apply, please submit a curriculum vitae and research statement, and arrange for three letters of reference to be sent via e-mail to [aes@astro.ucla.edu](mailto:aes@astro.ucla.edu) or by mail.

Professor Alice Shapley UCLA Department of Physics and Astronomy 430 Portola Plaza Box 951547 Los Angeles, CA 90095-1547

For further information contact Alice Shapley ([aes@astro.ucla.edu](mailto:aes@astro.ucla.edu)). UCLA is an affirmative action/equal opportunity employer; Women and members of minorities are especially encouraged to apply for this position. No benefits information has been provided by the employer.

**No. 25404**  
**Postdoctoral Fellowships in Theoretical Cosmology**  
**CENTER FOR COSMOLOGY, THE UNIVERSITY OF TEXAS AT AUSTIN**  
**2511 Speedway, RLM 15.306**  
**Austin, TX 78712**  
**USA**

**Tel: 512-883-5891**  
**FAX: 512-471-6016**

**Email Submission Address: [centerfellow@astro.utexas.edu](mailto:centerfellow@astro.utexas.edu)**  
**Email Inquiries: [centerfellow@astro.utexas.edu](mailto:centerfellow@astro.utexas.edu)**

**Attention: Eiichiro Komatsu, Professor**

Applications are invited for Postdoctoral Fellowships in broad areas of theoretical physics and astrophysics related to cosmology. These positions are in conjunction with the Center for Cosmology, the newly established research unit at the University of Texas at Austin. The Center provides a focal point for interdisciplinary efforts between the Departments of Astronomy and Physics at UT Austin, bringing talented physicists and astronomers together to approach various problems in modern cosmology, such as dark energy, dark matter, inflation, structure formation, and cosmic reionization, using both theoretical means and observational tools such as the cosmic microwave background, large-scale structure of the universe, and 21-cm fluctuations.

The Center Fellows are expected to interact and conduct independent research in collaboration with the faculty members of the Center: Volker Bromm, Karl Gebhardt, Gary Hill, Eiichiro Komatsu (Director), Milos Milosavljevic and Shiroko from the Dept. of Astronomy, and Duane Dicus, Jacques Distler, Willy Fischler, Vadim Kaplunovsky, Sonia Paban and Steven Weinberg from the Dept. of Physics. The Center Fellows will have access to state-of-the-art computational and visualization facilities provided by the Texas Advanced Computing Center, <http://www.tacc.utexas.edu>. The UT Austin is a host of the next-generation galaxy survey, the Hobby-Eberly Dark Energy Experiment (HETDEX).

The positions are initially for two years, with an extension of one additional year, subject to satisfactory performance.

Candidates should submit a curriculum vitae, a summary of past research accomplishments and current research interests and plans, and arrange for at least three letters of reference to be sent by January 30, 2009, to: [centerfellow@astro.utexas.edu](mailto:centerfellow@astro.utexas.edu) (electronic submission of applications and letters in PDF format is preferred).

The UT Austin is an Equal Opportunity employer and an Affirmative Action employer that values diversity in its work force.

The standard University of Texas at Austin employee benefits are included with the position.

**No. 25406**  
**Postdoctoral position in Pulsar and Transient Science with LOFAR, based at ASTRON (Netherlands Institute for Radio Astronomy)**  
**ASTRON**  
**Oude Hoogeveensedijk 4**  
**Dwingelo, NL 7991 PD**  
**The Netherlands**

**Tel: +31521595100**  
**FAX: +31521595101**

**URL1: [www.astron.nl](http://www.astron.nl)**  
**URL2: [www.lofar.org](http://www.lofar.org)**  
**Email Submission Address: [personnel@astron.nl](mailto:personnel@astron.nl)**  
**Email Inquiries: [personnel@astron.nl](mailto:personnel@astron.nl)**

**Attention: Ms. Diana Verweij, Personnel officer**

Postdoctoral Position in Pulsar and Transient Science with LOFAR, based at ASTRON (Netherlands Institute for Radio Astronomy)

Deadline: March 1st, 2009

The Astronomy Group at ASTRON (Netherlands Institute for Radio Astronomy) has a position available for postdoctoral research in pulsar and/or transient astronomy. The successful candidate will have significant liberty in defining his/her own research goals in this area, but is also expected to be active in pulsar and transient science with the LOFAR telescope. A background in radio pulsar astronomy is desirable for this position, but candidates with other backgrounds are also encouraged to apply.

The ASTRON Astronomy Group is heavily involved in the commissioning of LOFAR for pulsar and transient science, as well as being active in other LOFAR key science projects. Construction of the LOFAR telescope is well under way, with a significant fraction of the total collecting area expected to be in place by summer 2009.

The successful candidate will have access to excellent computational facilities and travel support. Collaboration is encouraged with the nearby astronomy departments in Amsterdam, Groningen, Leiden, Nijmegen and Utrecht.

The appointment is initially for two years and can be renewed for a third year, based on good performance. Letters of application (including a CV & research plan), plus 3 letters of reference should be sent to [personnel@astron.nl](mailto:personnel@astron.nl) before the deadline of March 1st, 2009.

The successful candidate will be in the formal employ of the Netherlands Organization for Scientific Research (NWO), at a salary scale commensurate with age and experience. Relocation expenses and assistance with finding accommodation will be provided.

For further information contact: Dr. Jason Hessels ([hessels@astron.nl](mailto:hessels@astron.nl)) and see <http://www.astron.nl> and <http://www.lofar.org>.

No benefits information has been provided by the employer.

**No. 25410**  
**Sloan Digital Sky Survey III & the Collaboration of Astronomy Teaching Scholars (CATS) Postdoctoral Fellowship in Astronomy Education Research**  
**CENTER FOR ASTRONOMY EDUCATION, STEWARD OBSERVATORY, UNIV. OF ARIZONA**  
**USA**

**URL1: [http://www.hr.arizona.edu/prnspective\\_employees](http://www.hr.arizona.edu/prnspective_employees) (Applicants must apply through the Univ. of Arizona Human Resources website.)**  
**Attention: Gina Brissenden**

Applications are invited for a two-year Postdoctoral Fellowship position in space-science education with the Center for Astronomy Education (CAE) at the University of Arizona Department of Astronomy, Steward Observatory. The position will begin August 2009. The successful candidate will divide their time between working on the Education and Public Outreach efforts of the Sloan Digital Sky Survey III (SDSS-III) program and the NSF Collaboration of Astronomy Teaching Scholars (CATS) program. Applicants must have a Ph.D. and experience with curriculum development, research and evaluation on the teaching and learning of science. Experience working in informal and formal education settings with non-science majors and the public is strongly desired. College teaching experience in astronomy/physics is preferred but not required. Candidates should have a strong background in quantitative and qualitative educational research methods, and data analysis, including experience with SPSS. Candidates should be familiar with data-driven decision making including basic knowledge of SQL.

The candidate will be involved in developing a strong program of education research into how non-science learners (both college non-science majors and members of the general public) taking courses in introductory astronomy and participating in online citizen science projects (such as <http://www.galaxyzoo.org>) change in their beliefs about science, and their science literacy.

This position will be funded at a competitive salary level for postdoctoral fellows at the University of Arizona. Applicants must apply at the University of Arizona Human Resources Job Search webpage ([http://www.hr.arizona.edu/prospective\\_employees](http://www.hr.arizona.edu/prospective_employees)) and apply for Job Number xxxxxxx.

Standard Univ. of Arizona benefits apply ([http://www.hr.arizona.edu/general\\_benefits\\_information](http://www.hr.arizona.edu/general_benefits_information))

**No. 25412**  
**Postdoctoral Position in Observational Cosmology**  
**CASE WESTERN RESERVE UNIVERSITY**  
**10900 Euclid Avenue**  
**203 Rockefeller Bldg.**  
**Cleveland, Ohio 44106-7079**  
**USA**

**Tel: 216-368-4049**  
**FAX: 216-368-4671**

**Email Submission Address: [ruhl@case.edu](mailto:ruhl@case.edu)**  
**Email Inquiries: [ruhl@case.edu](mailto:ruhl@case.edu)**

**Attention: John E. Ruhl, Professor of Physics**

Postdoctoral Position in Observational Cosmology

Case Western Reserve University

The CMB Cosmology group in the Department of Physics at Case Western Reserve University is seeking a postdoctoral scholar to work on the South Pole Telescope (SPT) project. The main focus of the position will be the development of a new polarization sensitive receiver; there are also opportunities for working with the current instrument on the SPT, targeting SZ measurements of galaxy clusters and arcminute-scale CMB temperature anisotropies. The candidate should hold a Ph.D. in physics, astronomy, or a closely related field. Experience with millimeter-wave, low-noise, or cryogenic instrumentation is desirable. Applicants should send a curriculum vitae, brief summary of research experience, bibliography, and the names of three references to: Prof. John Ruhl, Department of Physics, Case Western Reserve University, 10900 Euclid Ave, Cleveland, OH, 44106-7079. Inquiries can be directed to [ruhl@cwru.edu](mailto:ruhl@cwru.edu). Case Western Reserve University is an affirmative action/equal opportunity employer, and encourages applications from women, minorities, veterans and disabled persons.

No benefits information has been provided by the employer.

**No. 25413**  
**Postdoctoral Position for studies of the "star-disk connection" in young stellar objects**  
**UNIVERSITY OF MICHIGAN, DEPARTMENT OF ASTRONOMY**  
**803 Dennison Building**  
**500 Church Street**  
**Ann Arbor, MI 48109-1042**  
**USA**

**Tel: 734-763-5822**

FAX: 734-763-6317  
URL: <http://www.astronomy.umd.edu/> (Dept. of Astronomy Home Page)

Email Submission Address: [monnier@umich.edu](mailto:monnier@umich.edu)  
Email Inquiries: [monnier@umich.edu](mailto:monnier@umich.edu)

Attention: John Monnier, Professor

We seek a postdoctoral researcher interested in studying the star-disk connection in young stellar objects. The goal of the research is to develop a synthesis of high-resolution spectroscopy, high angular resolution interferometry and state-of-the-art radiative transfer modelling, in order to improve our understanding of the structure of the gas flow from the circumstellar disk onto the central star as well as the nature of associated outflows. Previous experience modeling circumstellar disks and their winds is highly desired. The successful applicant will work closely with Drs. Monnier, Calvet, and Tamirakulam and will join the active and diverse star and planet formation group at UM, which also includes Professors Fred Adams, Ted Bergin, and Lee Hartmann. As a Postdoctoral Fellow, the successful applicant will also have access to available UM research facilities including the twin Magellan 6.5 meter telescopes in Chile, the MDM 1.3 meter and 2.4 meter telescopes on Kitt Peak, the 26 meter UM radio telescope and the departmental computing network. Professor Monnier will be available for interviews at the Long Beach AAS Meeting in January, 2009 - please contact him if interested in discussing this position. This position is initially for one year and may be extended up to three years (subject to continued NASA funding and to annual performance review), and can begin as early as March 2009. Applicants should provide a vita, bibliography and a statement of research interests, and secure at least three letters of recommendation. Applications received prior to February 15, 2009, will receive first consideration. Please address all applications and recommendations to Prof. John Monnier at the above address (email submissions are preferred). The University of Michigan is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.  
<http://www.umich.edu/~benefits/>

No. 25414

Postdoctoral Position in Spitzer Studies of Kepler Exoplanets  
HARVARD COLLEGE OBSERVATORY AND HARVARD DEPARTMENT OF ASTRONOMY

URL1: <http://www.cfa.harvard.edu/~scharbon/frames.html> (Prof. Charbonneau Research Homepage)

URL2: <http://kepler.nasa.gov/> (Kepler Mission)

Email Submission Address: [dcharbonneau@cfa.harvard.edu](mailto:dcharbonneau@cfa.harvard.edu)

Attention: David Charbonneau

Our group was recently awarded a large allocation of Warm Spitzer observations to study exoplanets and candidates identified by the NASA Kepler Mission. Kepler will discover novel classes of transiting exoplanets, including cool Jupiters and Saturns, the thermal emission of each of which is amenable to direct study with the Spitzer Space Telescope. Such observations will permit the first opportunity to test directly theoretical models of exoplanetary atmospheres of varying compositions (notably SuperEarths and Neptunes) and under differing levels of irradiation (cooler Jovian companions). We will also use Spitzer to observe transits of Kepler-identified candidate terrestrial exoplanets to prove that these signals are indeed planetary in origin. The successful applicant will work closely with David Charbonneau. Each applicant should email a statement of interest at most 3 pages explaining her or his interest and qualifications for this position, and a current CV with a list of publications. Applications should also request for three letters of recommendation to be sent directly from the writers by the deadline. Appointments are for 1 year, with renewals for a second and third year likely, contingent upon satisfactory progress. The starting date is September 2009, but is negotiable depending on the applicant's availability. The salary is competitive, and health benefits and relocation allowance are provided. Harvard University is an Equal Opportunity / Affirmative Action Employer. Women and members of minority groups are especially welcome to apply. Health benefits and relocation allowance are provided.

No. 25417

Postdoctoral Associate  
CARNEGIE OBSERVATORIES

813 Santa Barbara Street  
Pasadena, CA 91101

USA

Tel: 626-304-0247

FAX: 626-304-0266

URL1: <http://www.ociw.edu>

Email Submission Address: [cbpostdoc@ociw.edu](mailto:cbpostdoc@ociw.edu)

Email Inquiries: [cbpostdoc@ociw.edu](mailto:cbpostdoc@ociw.edu)

Attention: Dr. Wendy Freedman, Re: Postdoctoral Associate

We invite applications for a postdoctoral associate in optical/IR astronomy at the Carnegie Observatories in Pasadena, California, to begin as soon as possible. The successful candidate will participate in the Carnegie Hubble Program (CHP), a new program to measure the Hubble constant to an accuracy of 2%, funded in part by the Spitzer "Exploration Science" program. The CHP is underway using the telescopes at Las Campanas, Chile, and Spitzer plus HST. The candidate will participate in all aspects of the research and be responsible for developing data processing tools for the analysis of Spitzer mid-IR photometry of Cepheids, as well as the reduction of spectral data for the determination of line widths for the Tully-Fisher relation, and their application to the determination of the Hubble constant. The candidate will also be observing with the telescopes at Las Campanas and work in a group including Drs. Wendy Freedman, Barry Madore and Eric Persson. Data-analysis and high-level programming experience is a requirement. Prior observing experience with infrared (or optical CCD) detectors is highly desirable. Familiarity with programming languages, such as FORTRAN or C is required, and a familiarity with astronomical data processing (IRAF or IDL) is desirable, but not essential. The successful applicant must have completed a Ph.D. before assuming the associate position. The appointment will be for two years with a starting date as early as July 1, 2009, but the search will continue until the position is filled. Applicants are requested to complete an online application at <http://www.ociw.edu/Applications>. Items required are: a cover letter, curriculum vitae, publications list, short statement of research interests, a statement outlining specific qualifications that match the programming requirements given above. In addition, applicants should arrange for three letters of reference to be sent electronically to the above e-mail address by January 31, 2009. The Carnegie Institution of Washington is an Equal Opportunity Employer. No benefits information has been provided by the employer.

No. 25419

Schroedinger Fellowship in Star Formation  
DUBLIN INSTITUTE FOR ADVANCED STUDIES

10 Burlington Road

Ireland

Tel: +353-1-6140122

FAX: +353-1-6680561

Email Submission Address: [registrarsoffice@admin.dias.ie](mailto:registrarsoffice@admin.dias.ie)

Email Inquiries: [ir@cp.dias.ie](mailto:ir@cp.dias.ie)

Attention: Mary Brennan, Administrator, Registrar's Office

The Dublin Institute for Advanced Studies is inviting applications for a 5-year Schroedinger Fellowship in the field of star formation. Areas of interest include outflows from young stars and brown dwarfs, protostellar disks and the initial mass function. The institute is a partner in building the Mid-Infrared Instrument (MIRI) for the James Webb Space Telescope and has recently become involved in the Gould Belt Survey to be carried out using Spitzer, Herschel, and the James Clark Maxwell Telescope. While the postdoctoral fellow is expected to work in the area of observations, he or she will be encouraged to interact closely with the astrophysical synthesis information can be had by contacting the relevant research group. The Institute is an equal opportunity employer. Applications, to include a CV, publication list, short research plan, and the contact details of two referees should be sent, ideally as a single PDF file by e-mail to [registrarsoffice@admin.dias.ie](mailto:registrarsoffice@admin.dias.ie) (with a cc to [tom.ray@dias.ie](mailto:tom.ray@dias.ie)) quoting "SCP0902 Star Formation Fellowship" in the subject field, to arrive on or before 31 March 2009. The position will remain open until filled. The fellowship is offered subject to the general Irish public service regulations and employment legislation (e.g. regarding maternity leave, holiday entitlements, etc.) and includes generous pension provision.

No. 25421

Research Associate in Spitzer/IRAC & HST/WFC3 Lensing Cluster Survey  
STEWART OBSERVATORY, UNIVERSITY OF ARIZONA

933 N. Cherry Ave.

Tucson, AZ 85721-0065

USA

Tel: 520-621-3161

FAX: 520-621-9555

URL1: <http://www.as.arizona.edu> (Steward Observatory home page)

URL2: <http://www.hr.arizona.edu> (University of Arizona Human Resources home page)

Email Submission Address: [eeagami@as.arizona.edu](mailto:eeagami@as.arizona.edu)

Email Inquiries: [eeagami@as.arizona.edu](mailto:eeagami@as.arizona.edu)

Attention: Eiichi Egami, Associate Astronomer

Applications are invited for a postdoctoral position at the Steward Observatory, the University of Arizona, to work with Dr. Eiichi Egami on the Spitzer Cycle-6 Exploration Science Program "The IRAC Lensing Survey" (PI: Egami; 526.4 hours) and the HST Cycle-17 GO program "Are Low-Luminosity Galaxies Responsible for Cosmic Reionization?" (PI: Jean-Paul Kneib; US admin PI: Egami; 43 orbits). Together, these two programs will search for gravitationally lensed galaxies at z>6 and characterize their properties. The successful applicant will take part in the processing/analysis of the Spitzer/IRAC and HST/WFC3 data, and conduct ground/space follow-up observations. We are particularly interested in those applicants who can make creative/innovative use of this rich data set to expand the scientific scope of these two programs. Although the work related to these two programs must take priority, the position includes full access to the Steward observing facilities such as the 28x4m Large Binocular Telescope, 2x6.5m Magellan Telescopes, 6.5m MMT Telescope, 2.3m Bok Telescope, and 10m Submillimeter Telescope. The appointment will be for two years initially with the possibility of a third-year extension based on performance and availability of funding. The position can start as early as spring 2009, and must start by fall 2009 at the latest. By the starting date, the candidate must have a Ph.D. in Astronomy, Physics, or a related field. To apply, please complete an on-line application for job #42307 at <http://www.hr.arizona.edu>. Please be prepared to attach a cover letter, a curriculum vitae, a list of publications, and a statement of research experience and interests. Applicants should also arrange for three letters of recommendation to be sent directly to Dr. Eiichi Egami at the above address. For full consideration, applications should be received by February 15, 2009.

No. 25422

Research Associate in Ultra-Deep Spitzer/MIPS Imaging of the Lockman Hole  
STEWART OBSERVATORY, UNIVERSITY OF ARIZONA

933 N. Cherry Ave.

Tucson, AZ 85721-0065

USA

Tel: 520-621-3161

FAX: 520-621-9555

URL1: <http://www.as.arizona.edu> (Steward Observatory home page)

URL2: <http://www.hr.arizona.edu> (University of Arizona Human Resources home page)

Email Submission Address: [eeagami@as.arizona.edu](mailto:eeagami@as.arizona.edu)

Email Inquiries: [eeagami@as.arizona.edu](mailto:eeagami@as.arizona.edu)

Attention: Eiichi Egami, Associate Astronomer

Applications are invited for a postdoctoral position at the Steward Observatory, the University of Arizona, to work with Dr. Eiichi Egami and Prof. George Rieke on the Spitzer Cycle-5 Legacy program "Ultra-Deep MIPS Imaging of the Lockman Hole" (PI: Egami; 1.7 hours). This program will obtain ultra-deep Spitzer/MIPS (24/70/160um) maps of the ~30'x30' Lockman Hole area that has a variety of multi-wavelength data (e.g., XMM, SUBARU, LBT, UKIRT, SCUBA, Herschel (planned), AT&TEC, VLA). Our project team is a consortium of those investigators who have obtained (or will soon obtain in the case of Herschel) these data sets. One innovative aspect of this Spitzer program is an attempt to perform absolute calibration of the ultra-deep MIPS maps at 24/70/160um with carefully designed MIPS Total Power Mode observations. Responsibilities of the successful applicant include: (1) to process and analyze the Spitzer/MIPS data, (2) to prepare legacy products for public distribution, (3) to construct/maintain the project home page, and (4) to conduct ground/space follow-up observations. We also welcome applications from researchers studying the properties of infrared backgrounds. Although the execution of this Spitzer Legacy project must take priority, the position includes full access to the Steward observing facilities such as the 28x4m Large Binocular Telescope, 2x6.5m Magellan Telescopes, 6.5m MMT telescope, 2.3m Bok Telescope, and 10m Submillimeter Telescope. The appointment will be for two years initially with the possibility of a third-year extension based on performance and availability of funding. The position can start as early as spring 2009, and must start by September at the latest. By the starting date, the candidate must have a Ph.D. in Astronomy, Physics, or a related field. To apply, please complete an on-line application for job #42308 at <http://www.hr.arizona.edu>. Please be prepared to attach a cover letter, a curriculum vitae, a list of publications, and a statement of research experience and interests. Applicants should also arrange for three letters of recommendation to be sent directly to Dr. Eiichi Egami at the above address. For full consideration, applications should be received by February 15, 2009.

No. 25428

Postdoctoral  
NEW MEXICO INSTITUTE OF MINING AND TECHNOLOGY

801 Leroy Place

Brown Hall Box 159

Socorro, New Mexico 87801

Tel: 575-835-6962

FAX: 575-835-5337

Email Inquiries: [karla@kestrel.nmt.edu](mailto:karla@kestrel.nmt.edu)

Attention: Karla Montoya, Human Resources Technician II

Postdoc Position in Infrared Instrumentation -- New Mexico Tech (NMT) - Magdalena Ridge Observatory (MRO)

New Mexico Tech invites applications for a postdoc with experience in Infrared Astrophysical Instrumentation. The successful applicant will work with Professor Michelle Creech-Eakman and a team of collaborators at NMT and the Jet Propulsion Laboratory building a NIR spectrometer to be used at NMT's MRO 2.4m fast-tracking telescope. Intended applications for the spectrometer include studies of nearby stars and extra-solar planets. Responsibilities include: procurement and assembly of spectrometer components, debugging of optical, mechanical, electrical/FPA and cryogenic/vacuum interfaces, and calibration and testing of the spectrometer in the lab and at the telescope. The successful applicant will be a member of the scientific team undertaking these investigations. Preference will be given to candidates with hands-on experience in infrared instrumentation and deploying/operating those instruments at telescopes. For further information about MRO, please see our webpages: <http://www.mro.nmt.edu>. Candidates should have obtained a PhD in Physics, Astronomy or a closely related field by the starting date. The appointment begins in the summer or fall of 2009, funding dependent, and will be for 2 years with a possible renewal for an additional year. To apply please send resume, personal statement of interest and experience, a list of relevant publications and three letters of recommendation to the address above. Review of applications will occur from February to April, 2009. New Mexico Tech is an Equal Opportunity/Affirmative Action employer. Women and minorities are encouraged to apply. No benefits information has been provided by the employer.

No. 25224 (New)

Theoretical Cosmology  
UNIVERSITY OF MICHIGAN

450 Church St

Physics Department

Ann Arbor, MI 48109-1040

Tel:

Email Submission Address: [auter@umich.edu](mailto:auter@umich.edu), [watson@umich.edu](mailto:watson@umich.edu)

Email Inquiries: [auter@umich.edu](mailto:auter@umich.edu), [watson@umich.edu](mailto:watson@umich.edu)

Attention: Dragn Huterer, Scott Watson, Assistant Professors

The Department of Physics at the University of Michigan invites applications for a postdoctoral position in theoretical cosmology starting September 1, 2009. The successful candidate will work with Profs. Dragan Huterer and Scott Watson and other members of the Michigan cosmology group. We are looking for a candidate whose expertise can be in a broad range of topics, including cosmic microwave background radiation, large-scale structure, dark matter, dark energy, and theoretical particle physics. The University of Michigan has a very active program in cosmology, spanning the fields of particle physics, experimental and theoretical cosmology, and astrophysics. Michigan Center for Theoretical Physics (MCTP) attracts the world's top physicists and astronomers through its conferences and visitor program. Michigan is also an active member of the Dark Energy Survey (DES), Supernova/Acceleration Probe (SNAP), and the Sloan Digital Sky Survey (SDSS). The candidate will be urged to take advantage of this vibrant atmosphere. The position is initially for two years, renewable for up to three. Applications can be sent either by email to both huterer@umich.edu and watsons@umich.edu or by regular mail to Dragan Huterer, Department of Physics, University of Michigan, 430 Church St. Ann Arbor, MI 48109-1040, USA. Applicants should submit a curriculum vitae, a publication list, a description of research interests, and arrange for three letters of reference to be sent directly to the above emails or address. The deadline is January 1, 2009, but applications will be considered until the position is filled. University of Michigan is an equal opportunity/affirmative action employer.

**No. 25234 (New)**

**Post-doctoral Position in Star & Planet Formation**

**UNIVERSITY OF ROCHESTER**

**Department of Physics & Astronomy**

**PO Box 270171**

**Rochester, NY 14627-0171**

**USA**

**Tel: 585-275-5389**

**FAX: 585-273-2813**

**URL1: <http://www.pas.rochester.edu/jurpas/>**

**URL2: <http://www.pas.rochester.edu/~enmamajek/>**

**URL3: <http://www.astro.valpo.edu/smart3/>**

**Email Submission Address: [nhatler@pas.rochester.edu](mailto:nhatler@pas.rochester.edu)**

**Email Inquiries: [annemck@pas.rochester.edu](mailto:annemck@pas.rochester.edu)**

**Attention: Ms. Nikki Hatler**

The University of Rochester invites applications for a post-doctoral position working with Prof. Eric Mamajek on research related to investigating young stellar populations in the solar neighborhood.

The University of Rochester is joining the Small and Moderate Aperture Research Telescope System (SMARTS) consortium in 2009, and the candidate will be involved in the analysis of optical spectroscopy of young stars. Opportunities may exist for collaborating on projects regarding the formation and evolution of stellar and substellar objects, and the candidate will also be encouraged to pursue independent research. Applicants must have a Ph.D. in astronomy or related field. Experience with analyzing spectroscopic data is essential. The start date is flexible, but preferably no later than September 1st, 2009. The appointment will be for two years with a possible third year subject to funding availability and performance. The candidate should send three letters of recommendation to be sent. All application materials, including letters, can be submitted in PDF via email to Nikki Hatler (nhatler@pas.rochester.edu). For more information, contact Prof. Eric Mamajek (enmamajek@pas.rochester.edu; 585-275-5389).

The University of Rochester has a strong commitment to diversity and actively encourages applications from candidates from groups underrepresented in higher education. The University of Rochester is an Equal Opportunity/Affirmative Action employer and encourages applicants from members of minority groups and women. All applications are considered without regard to race, sex, age, religion or national origin. Salary will be competitive.

**No. 25237 (New)**

**POSTDOCTORAL RESEARCH STAFF MEMBER**

**LAWRENCE LIVERMORE NATIONAL LABORATORY**

**Tel:**

**URL1: <https://jobs.llnl.gov>**

**Email Inquiries: [macintosh@llnl.gov](mailto:macintosh@llnl.gov)**

**Attention: Bruce Macintosh**

The Institute of Geophysics and Planetary Physics (IGPP) at Lawrence Livermore National Laboratory has an opening for a Postdoctoral Research Staff Member in the Astrophysics Group. We seek an astronomer or physicist to work in studies of extrasolar planetary systems or circumstellar dust disks. The primary focus is on high-contrast imaging using adaptive optics or coronagraphic instruments to search for low-mass and planetary companions to young stars, and/or near and mid-infrared studies of circumstellar dust. The position will be involved in observations with and analysis of data from the Keck Observatory, and will have the opportunity to devise new observational programs. Applicants with less observational experience but expertise in coronagraph or adaptive optics analysis and design will also be considered.

The researcher will also be involved in the science planning and first-light observations of the Gemini Planet Imager (GPI). GPI is a facility instrument for the Gemini South telescope combining a dedicated high-contrast AO system, coronagraph, and integral field spectrograph being built by a consortium of institutions led by LLNL, with first light planned for early 2011. The position will report to Dr. Bruce Macintosh, the GPI principal investigator, and also work with Professor James Graham, the GPI project scientist.

IGPP at LLNL is a multi-disciplinary research center with researchers working in laboratory, observational, and theoretical astrophysics. Postdoctoral researchers have direct access to Lick Observatory facilities and (through their supervisors) Keck Observatory. The position is renewable up to three years. The deadline for application is January 31, 2009.

LLNL offers a challenging environment and a competitive salary/benefits package. To view and apply for this job, go to <https://jobs.llnl.gov> and search by job #007547. When applying and prompted please mention where you saw this ad. If there are any questions, please contact Bruce Macintosh at: [macintosh@llnl.gov](mailto:macintosh@llnl.gov). LLNL is operated by the Lawrence Livermore National Security, LLC, for the U.S. Department of Energy, National Nuclear Security Administration. We are proud to be an equal opportunity employer with a commitment to workforce diversity.

**No. 25238 (New)**

**POSTDOCTORAL RESEARCH STAFF MEMBER**

**LAWRENCE LIVERMORE NATIONAL LABORATORY**

**Tel:**

**URL1: <https://jobs.llnl.gov>**

**Email Inquiries: [macintosh@llnl.gov](mailto:macintosh@llnl.gov)**

**Attention: Bruce Macintosh**

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The researcher will also be involved in the science planning and first-light observations of the Gemini Planet Imager (GPI). GPI is a facility instrument for the Gemini South telescope combining a dedicated high-contrast AO system, coronagraph, and integral field spectrograph being built by a consortium of institutions led by LLNL, with first light planned for early 2011. The position will report to Dr. Bruce Macintosh, the GPI principal investigator, and also work with Professor James Graham, the GPI project scientist.

IGPP at LLNL is a multi-disciplinary research center with researchers working in laboratory, observational, and theoretical astrophysics. Postdoctoral researchers have direct access to Lick Observatory facilities and (through their supervisors) Keck Observatory. The position is renewable up to three years. The deadline for application is January 31, 2009.

LLNL offers a challenging environment and a competitive salary/benefits package. To view and apply for this job, go to <https://jobs.llnl.gov> and search by job #007547. When applying and prompted please mention where you saw this ad. If there are any questions, please contact Bruce Macintosh at: [macintosh@llnl.gov](mailto:macintosh@llnl.gov). LLNL is operated by the Lawrence Livermore National Security, LLC, for the U.S. Department of Energy, National Nuclear Security Administration. We are proud to be an equal opportunity employer with a commitment to workforce diversity.

**No. 25253 (New)**

**Research Associate**

**NATIONAL RESEARCH COUNCIL CANADA (NRC)**

**5071 West Saanich Road**

**Victoria, BC V9E 2E7**

**Canada**

**Tel: 250-363-3436**

**FAX: 250-363-8766**

**URL1: [http://careers.carrires.nrc-nrc.gc.ca/main\\_e.html](http://careers.carrires.nrc-nrc.gc.ca/main_e.html)**

**Email Inquiries: [Gerald.Schieven@nrc-nrc.gc.ca](mailto:Gerald.Schieven@nrc-nrc.gc.ca)**

**Attention: Human Resources Systems Coordinator, NRC Herzberg Institute of Astrophysics (NRC-HIA)**

The National Research Council of Canada's Herzberg Institute of Astrophysics (NRC-HIA) has an opening for a Research Associate working with the Millimetre Astronomy Group (MAG) for the James Clerk Maxwell Telescope (JCMT). The position is to be based at the Joint Astronomy Centre in Hilo, HI, USA. The Research Associateship is for a maximum of three years; the initial appointment of two years may be extended for one further year (subject to performance and availability of funds). The successful candidate will carry out a program of high-caliber astronomical research, which includes use of the SCUBA-2 sub-millimetre camera at the Joint Astronomy Centre.

In addition to high competitive benefits and salary, Research Associates receive support for observing and conference travel, page charges, and access to professionally managed computers and the Canadian Astronomy Data Centre, which is home to the Canadian Virtual Observatory and data archives from, e.g., CFHT, CGPS, HST, Gemini, JCMT.

The Research Associateship is offered to an outstanding recent doctoral graduate in astronomy/astrophysics. Applicants must have acquired their PhD within the last five years or expect to obtain the degree before starting the Associateship in 2009. Applications should be made by 21 January 2009, via the process described in the poster for competition 40-08-22 at the above noted URL address. Please note that you must submit a statement of proposed research, which includes the use of the SCUBA-2 sub-mm camera, along with your cv, cover letter, publication list, and at least two letters of reference. For further information about the facilities and research programmes at DAO, please contact Gerald.Schieven@nrc-nrc.gc.ca. A starting date of mid 2009 is envisaged.

**NRC is an equal opportunity employer.**

Vous pouvez obtenir ces renseignements en français au site web indiqué ci-haut.

**No. 25256 (New)**

**Postdoctoral Scholar**

**CALIFORNIA INSTITUTE OF TECHNOLOGY**

**1200 E. California Blvd.**

**MS 220-6**

**Pasadena, CA 91125**

**USA**

**Email Submission Address: [ogle@ipac.caltech.edu](mailto:ogle@ipac.caltech.edu)**

**Attention: Dr. Patrick Ogle**

Applications are invited for a Postdoctoral Scholar position in extragalactic IR astronomy at Caltech. The successful applicant will work jointly with Dr. Patrick Ogle of the Spitzer Science Center and Dr. Phil Apleton at the Spitzer Science Center, of IRS spectroscopy of a rich variety of radio galaxies and quasars in galaxy groups and clusters. Recent observations by Spitzer's IRS have discovered very strong molecular hydrogen lines in the mid-IR which are believed to originate in large-scale shocks from galaxy collisions or radio jet feedback. In some cases, the line emission represents a significant fraction of the total molecular gas mass and bolometric luminosity of the galaxies. This has potentially far-reaching implications for the multiphase ISM and regulation of star formation in the most massive galaxies.

The Postdoctoral Scholar will be expected to participate in several studies aimed at understanding powerful H<sub>2</sub> emission in a variety of environments. This work will involve analysis of newly obtained Spitzer IRS spectra and ground-based near-IR and optical spectroscopy of radio galaxies. We also hope to obtain a deep IRS spectral map of a high-redshift galaxy protocluster in the next couple of months, which will allow us to study molecular gas and star formation in dense environments in the early universe. Experience with observational astronomy, especially IR spectroscopy will be highly desirable. Candidates should have obtained, by the starting date, a Ph.D. in astronomy, physics or equivalent, in an area relevant to these projects. The appointment is for two years (with the possibility of a renewal for a further year) and could start as early as March 2009.

To apply, please send a resume, publication list, statement of research, and 3 letters of reference to Dr. Ogle [ogle@ipac.caltech.edu](mailto:ogle@ipac.caltech.edu) by 1/31/2009. Caltech is an Affirmative Action/Equal Opportunity Employer. Women, Minorities, Veterans, and Disabled Persons are encouraged to apply.

**No. 25258 (New)**

**Post-doctoral position in protoplanetary disks studies**

**ECOLE NORMALE SUPERIEURE DE LYON**

**Ecole Normale Supérieure de Lyon**

**46 allée d'Italie**

**France**

**Tel: +33 4 72 72 87 02**

**FAX: +33 4 72 72 87 87**

**URL1: <http://www.obs.univ-lyon1.fr/Centre de Recherche Astrophysique de Lyon>**

**Email Submission Address: [Jean-Francois.Gonzalez@ens-lyon.fr](mailto:Jean-Francois.Gonzalez@ens-lyon.fr)**

**Email Inquiries: [Jean-Francois.Gonzalez@ens-lyon.fr](mailto:Jean-Francois.Gonzalez@ens-lyon.fr)**

**Attention: Jean-François Gonzalez**

The Centre de Recherche Astrophysique de Lyon is offering a 2-year research-only postdoc position in the protoplanetary disks team of its Theoretical Astrophysics group at Ecole Normale Supérieure de Lyon, as part of the "Dusty Disks" project, supported by a French ANR grant. The project focuses on studying the structure of protoplanetary disks, the interaction between gas and dust, and the first stages of planet formation. Our team has developed an SPH code to model the dynamic evolution of dust grains under the influence of gas drag simultaneously with their growth via particle collisions in 3D global simulations of protoplanetary disks.

The candidate will have a PhD in Astrophysics and an expertise in hydrodynamics (preferably with a good knowledge of the SPH formalism) and/or numerical simulations. He or she will work on the development of new features of the 3D, two-phase, SPH code. In particular, he/she will work on an implementation of turbulence, and may assist on the refinement of grain growth calculations. The position can commence anytime from early March 2009, but no later than October 2009.

Applicants should send a resume, list of publications, statement of research interests and experience, and arrange for three letters of reference to be sent directly, preferably by e-mail, before 31 January 2009. For more information, e-mail Jean-Francois.Gonzalez@ens-lyon.fr

**No. 25261 (New)**

**postdoctoral position in astrophysics/cosmology - APC/IAP - Paris**

**INSTITUT D'ASTROPHYSIQUE DE PARIS (IAP) / ASTROPARTICULE ET COSMOLOGIE (APC)**

**98 bis boulevard Arago**

**France**

**Email Submission Address: [collinde@iap.fr](mailto:collinde@iap.fr)**

**Email Inquiries: [collinde@iap.fr](mailto:collinde@iap.fr)**

**Attention: Emmanuel Rollinde, Pr**

The French participation group to SDSS-III intends to appoint one or two postdoctoral researchers in observational and numerical cosmology. A PhD degree and relevant research experience are required. The positions are for two years, starting on October 1st, 2009, or earlier. The researchers will work on dark energy and more specifically on the Baryon Oscillations Spectroscopic Survey (BOSS), part of SDSS-III. Our team is involved in Large Scale Structure (LSS) analysis such as the Luminous Red Galaxies (LRG) correlation function and in the measurement of baryon oscillations in the Lyman alpha forest. The successful applicant is encouraged to carry out independent, original research. The positions would be either based at APC (Astroparticule et Cosmologie) or IAP (Institut d'Astrophysique de Paris), both in Paris, France. APC has a strong observational cosmology group (Planck, SDSS, LSST, Virgo/LISA...) as well as a theory group. It is also involved in high energy astrophysics and neutrino physics. IAP has a strong observational

group on QSO absorption systems as well as a strong simulation group (Horizon, Mare Nostrum, <http://www.projet-horizon.fr>). It has a long standing experience in Lyman-alpha forest studies and interpretation, in particular in the reconstruction of the IGM spatial distribution from multiple lines of sight.  
Additional information about IAP or APC and their facilities can be found in <http://www.iap.fr/> and <http://www.apc.univ-paris7.fr/>. Applications (CV, research statement, up to three letters of reference) should be sent by email to [aubourg@apc.univ-paris7.fr](mailto:aubourg@apc.univ-paris7.fr) and [rolinde@iap.fr](mailto:rolinde@iap.fr).  
The closing date is January 15, 2009.

**No. 25262 (New)**  
**postdocs in cosmology and astrophysics theory; astronomy and observational cosmology**  
**INSTITUTE FOR THE PHYSICS AND MATHEMATICS OF THE UNIVERSE**

5-1-5 Kashiwa-no-ha  
Japan  
Tel: +81-4-7136-5954  
FAX: +81-4-7136-4941  
URL1: <http://www.ipmu.jp> (IPMU homepage)  
URL2: <http://www.ipmu.jp/info/job.html#scientificstaffs> (Job ad page)  
Email Inquiries: [jitrosi.murayama@ipmu.jp](mailto:jitrosi.murayama@ipmu.jp)

Attention: Postdoc Selection Committee, Kenzo Nakamura  
The "Institute for the Physics and Mathematics of the Universe" (IPMU) is a new international research institute with English as its official language. It celebrated its first anniversary this October. The goal of the institute is to discover the fundamental laws of nature and to understand the universe from the synergistic perspectives of mathematics, statistics, theoretical and experimental physics, and astronomy. We are particularly interested in candidates with broad interests to interact with people from other subfields.  
We intend to appoint approximately 15 postdocs to three-year terms as well as a few distinguished postdocs to 3+2-year terms. We seek to build a diverse, highly interactive membership, and strongly encourage female and international applicants. We have generous travel support for our postdocs, and encourage full-time members to be away from the Institute for between 1 and 3 months every year.  
The initial focus of IPMU includes but is not limited to: all areas of mathematics (e.g. algebra, geometry, analysis, and statistics); string theory and mathematical physics; particle theory, collider phenomenology, beyond the standard model physics phenomenology; cosmology and astrophysics theory; astronomy and observational cosmology; and underground experiments. We are leading efforts on the XMASS dark matter experiment, the HyperSuprimeCam project for weak lensing surveys at the Subaru telescope, GAD200KS1 at Super-Kamiokande, the Xe-based double beta-decay search in KamLAND, and R&D for future large neutrino detectors. IPMU is a full-institution member in SDSS-III.  
The applications should include a CV, research statement, publication list, and at least three letters of recommendation. They should be uploaded at <http://www.ipmu.jp/info/job.html#scientificstaffs>  
The search is open until filled, but for full considerations please submit the applications and letters by Dec 1, 2008.

**No. 25267 (New)**  
**Harvard Postdoctoral Fellowship in Time Series Analysis**  
**HARVARD UNIVERSITY**

Harvard University  
60 Oxford Street, Room 403  
Cambridge, MA 02138  
USA  
Tel: 617-384-5912  
FAX: 617-496-0482  
URL1: <http://iic.harvard.edu> (IIC Website)  
URL2: <http://timemachine.iic.harvard.edu> (IIC Time Series Center Website)  
Email Submission Address: [helene\\_tingle@harvard.edu](mailto:helene_tingle@harvard.edu)  
Email Inquiries: [helene\\_tingle@harvard.edu](mailto:helene_tingle@harvard.edu)

Attention: Helene Tingle Uysal, Program Coordinator  
A postdoctoral position is available for an outstanding individual capable of taking a leading role in research on the analysis of scientific time series. The position is co-funded by the IIC Time Series Center at Harvard and by a recent NSF grant supporting Interdisciplinary Machine Learning Research and Education (<http://www.nsf.gov/awardsearch/showAward.do?AwardNumber=0803409>). The Fellow will work directly with Dr. Pavlos Protopoulos and the Time Series Center group at the Initiative in Innovative Computing (IIC) at Harvard (<http://timemachine.iic.harvard.edu/>) and the Tufts machine learning group (<http://www.cs.tufts.edu/research/ml/>) headed by Profs. Carla Brodley and Roni Khariton.  
A particular focus will be the upcoming astronomical survey called Pan-STARRS (the Panoramic Survey Telescope and Rapid Response System) is a panoramic sky survey that can cover the whole sky in one week, revealing unprecedented numbers of new transient objects. The postdoc will work closely with astronomers at the Harvard-Smithsonian Center for Astrophysics and the other Pan-STARRS partners working in transient object science.  
The project aims to make significant contributions to the application areas through basic research in machine learning and data analysis—for example, developing algorithms to automatically classify objects. Other applications in time series analysis from other sciences and medicine are also pursued as part of this highly interdisciplinary project. The Fellow will be expected to participate in international conferences and publish results in top conferences and journals.  
A Ph.D. in Computer Science, Electrical Engineering, Astronomy or closely related field is required. We are looking for a candidate with a strong background and ability to perform original research in machine learning and strong understanding and/or interest in Astronomy. A background in time series analysis, signal processing, and statistical pattern recognition is a plus. This is a two-year appointment with possible renewal for year three.  
Please send C.V., research statement and 3 letters of recommendation to Helene Tingle Uysal [helene\\_tingle@harvard.edu](mailto:helene_tingle@harvard.edu).

**No. 25268 (New)**  
**Postdoctoral Position in Extrasolar Planet Searches**  
**UNIVERSITY OF FLORIDA**

211 Bryant Space Science Center  
Gainesville, FL 32611  
USA  
Tel:  
URL: <http://www.astro.ufl.edu/~jge>  
Email Submission Address: [jge@astro.ufl.edu](mailto:jge@astro.ufl.edu)  
Email Inquiries: [jge@astro.ufl.edu](mailto:jge@astro.ufl.edu)

Attention: Jian Ge, Professor  
Applications are invited for a postdoctoral position to work with Prof. Jian Ge on Doppler planet search projects using new generation multi-object Doppler instruments with 120 object capability at the Sloan Digital Sky Survey (SDSS) 2.5 meter telescope and single object high precision (~1m/s) Doppler instruments at KPNO 2.1 meter and Li Jiang 2.4meter telescopes. The planet survey at the SDSS telescope, called Multi-object APO Radial Velocity Exoplanet Large-area Survey (MARVELS), is part of the SDSS III survey program in 2008-2014. MARVELS began in September 2008 and will search a total of 11,000 FGK stars with V=7-12 for giant planets.  
Ph.D. in Astronomy or Physics is required by start date. The successful applicant will work on developing optimized codes for data reduction and analysis, participate in observations, data reduction and analysis, and publications. There are also opportunities to be involved in other areas of research such as project development, proposal writing, and new near IR Doppler instrument development, and supervising students.  
Expertise in IDL software development and algorithm development is preferred. This is a one-year appointment and is renewable for up to two additional years, contingent upon performance and the continuation of funding. Salary will be commensurate with qualifications and experience.  
To apply, please submit a curriculum vita, a statement of research interests, and have three letters of reference sent to Professor Jian Ge at the address above. For full consideration, complete applications should be received by January 31st, 2009.  
University of Florida is committed to affirmative action, equal opportunity and the diversity of its work force.

**No. 25272 (New)**  
**Postdoctoral Position in Extragalactic Observational Astronomy**  
**UNIVERSITY OF MASSACHUSETTS / AMHERST**

Department of Astronomy / GR1- B 61E  
710 North Pleasant Street  
Amherst, MA 01003-9305  
USA

Tel: 413-545-2194  
FAX: 413-545-4223  
URL1: <http://www.astro.umass.edu/~calzetti/>  
URL2: <http://www.astro.umass.edu/~calzetti/>  
Email Submission Address: [calzetti@astro.umass.edu](mailto:calzetti@astro.umass.edu)  
Email Inquiries: [calzetti@astro.umass.edu](mailto:calzetti@astro.umass.edu)

Attention: Daniela Calzetti, c/o Ferni Grzybowski  
Applications are invited for a postdoctoral research position in extragalactic observational astronomy with Prof. Daniela Calzetti at the Astronomy Department of the University of Massachusetts/Amherst. The successful candidate will collaborate with Prof. Calzetti on studies of star formation in nearby galaxies, utilizing multi-wavelength datasets from the Ultraviolet to the Far-Infrared. Prof. Calzetti is involved in a number of observational projects on a variety of facilities, including current ones (Hubble Space Telescope, Spitzer Space Telescope) and near-future ones (post-servicing mission HST, and the Herschel Space Telescope). Projects include investigations of star formation rate indicators, the physics of star formation, and effects of stellar feedback in galaxies. The investigation will involve not only observational data, but also some modeling. The successful candidate is also encouraged to maintain an independent research program.  
The position is initially offered for two years, and can be extended for up to three years, dependent upon funding availability. The desired start date is September 2009.  
The interested candidates must have a PhD in Astronomy or equivalent degree, and expertise in the research area mentioned above. Salary will be commensurate with qualifications and experience. Applications should be sent to the address above, and should include a curriculum vitae, a brief (3 pages at most) description of past research accomplishments, and a summary (1 page, optional) of the proposed independent research program. Applicants should also arrange for three letters of reference to be sent directly to the address above. Applications sent by February 1st, 2009, will receive full consideration.  
The University of Massachusetts is an Affirmative Action/Equal Opportunity Employer. Woman and members of minority groups are encouraged to apply.

**No. 25273 (New)**  
**Adaptive Optics Postdoctoral Fellowship - ID# 28624**  
**RESEARCH CORPORATION OF THE UNIVERSITY OF HAWAII**

2530 Dole Street  
Sakamaki Hall D-100  
Honolulu, HI 96822  
Tel: (808) 956-3100  
FAX: (808) 956-5022  
URL1: <http://www.rcuh.com>  
URL2: <http://www.ifa.hawaii.edu>  
Email Inquiries: [mchun@ifa.hawaii.edu](mailto:mchun@ifa.hawaii.edu)

Attention: Research Corporation of the University of Hawaii  
The Institute for Astronomy adaptive optics group is a leading research group in curvature adaptive optics systems and components. We are seeking a post-doctoral researcher to join our group in developing advanced AO techniques and components. The successful candidate will help develop modeling capabilities for advanced curvature systems including the dynamic response of individual components, extended wavefront reference surfaces, detailed modeling of the propagation of the complex optical wavefront through the atmosphere, and new control approaches and techniques.  
Experience in modeling of adaptive optics systems, finite element analysis of piezo-electric materials, and control system design is desired. Proficiency in IDL, matlab, or similar analysis packages is required. Ph.D. from an accredited college or university in Astronomy or Physics is required. Ph.D. candidates may apply but must submit evidence of Ph.D. completion upon hire.  
Our group has built two 85-channel curvature adaptive optic systems (H85 and NICU/Gemini-South) and we continue to optimize them. The successful applicant will be encouraged to have an active role in analyzing data from these systems to anchor the modeling efforts. In addition, he/she may apply for access to the astronomical facilities on Mauna Kea and Haleakala, Hawaii.  
This appointment is for two years with a possibility of extension to a third year. The position is located in Honolulu or Hilo, Hawaii. The annual salary will be approximately \$56,500 per year and will include support for research activities.  
Applications received by the closing date of January 31, 2009 will receive full consideration. Please submit the following: resume/CV; cover letter including Recruitment ID#, referral source, narrative of your qualifications for position and salary history; names, phone numbers and addresses of three supervisory references and copy of degree(s)/transcripts/certificate(s). Please also arrange for two letters of recommendation to be sent by the closing date. You may apply online at [www.rcuh.com](http://www.rcuh.com) or mail your application to Director of Human Resources, Research Corporation of the University of Hawaii, 2530 Dole Street, Sakamaki Hall D-100, Honolulu, HI 96822 or fax to (808) 956-5022 by the closing date. If you have questions on the application process and/or need assistance, please call (808) 956-3100.  
For more information about the position contact: Mark Chun ([mchun@ifa.hawaii.edu](mailto:mchun@ifa.hawaii.edu))

**No. 25276 (New)**  
**Postdoctoral Research Position in GRBs and Pan-STARRS Transient Studies**  
**HARVARD-SMITHSONIAN CENTER FOR ASTROPHYSICS**

60 Garden St.  
MS-19  
Cambridge, MA 02138  
USA  
Tel: 617-495-7914  
FAX: 617-495-7467  
URL1: <http://www.cfa.harvard.edu/~eberger/> (Edo Berger's Homepage)  
URL2: <http://www.cfa.harvard.edu/> (Harvard-Smithsonian Center for Astrophysics)  
URL3: <http://panstarrs.cfa.harvard.edu/> (Pan-STARRS website)  
Email Submission Address: [eberger@cfa.harvard.edu](mailto:eberger@cfa.harvard.edu)  
Email Inquiries: [eberger@cfa.harvard.edu](mailto:eberger@cfa.harvard.edu)

Attention: Edo Berger, Professor  
The Harvard-Smithsonian Center for Astrophysics invites applications for a postdoctoral research position to work with Professor Edo Berger on: (1) Gamma-ray burst physics and applications to galaxy studies; (2) Galactic and extra-galactic transients from the Pan-STARRS project. Both topics are at the forefront of time-domain astronomy, an exciting and growing branch of astronomical investigation. The successful applicant will lead and participate in optical/infrared observing of GRBs using target-of-opportunity programs, in analysis of ground-based spectroscopy, and in long term studies of GRB host galaxies. With the upcoming start of Pan-STARRS science operations, the postdoc will also work with Professor Berger - the lead for GRB and transient studies with Pan-STARRS - on follow-up and characterization of optical transients, and the development of transient classification software. Applicants with previous experience in spectroscopy, space-based imaging analysis, image subtraction techniques, and GRB, supernova, or variable object science are encouraged to apply.  
Available resources include programs on the Hubble, Spitzer, and Chandra Space Telescopes, the Magellan and Gemini telescopes, the Submillimeter Array, and several small telescopes at Whipple Observatory. The position is for two years, renewable for a third year upon mutual agreement. The starting date will be September 1, 2009, but a later start is negotiable depending on the applicant's availability. Candidates must have a Ph.D. in astronomy, physics, or equivalent, by the date of appointment.  
Applicants should submit a cover letter, CV, list of publications, and a statement explaining research interests and qualifications, and arrange for three letters of recommendation to be sent directly. All materials and inquiries should be sent by email to [eberger@cfa.harvard.edu](mailto:eberger@cfa.harvard.edu), or if necessary by mail to the address listed above.  
Applications that are complete by January 15, 2009 will receive full consideration.  
The CFA hosts a strong research program in astrophysics and provides a stimulating environment. Harvard University is an Equal Opportunity / Affirmative Action Employer. Women and members of minority groups are especially welcome to apply.

**No. 25282 (New)**  
**Postdoctoral Associate**  
**VIRGINIA TECH**

Physics Department  
Robeson Hall

Blacksburg, VA 24061-0435

USA

Tel: (540) 231-8736

FAX: (540) 231-7511

URL1: [www.jobs.vt.edu](http://www.jobs.vt.edu) (online application submission (look for posting 081095))

URL2: <http://www.jobs.vt.edu/> (Physics department web site)

Email Submission Address: [arav@vt.edu](mailto:arav@vt.edu)

Attention: *Nahum Arav, Professor*

The Department of Physics at Virginia Tech seeks a Postdoctoral Associate to work in the general area of quasar outflows, warm absorbers and their influence on cosmological structure formation. The successful candidate may participate in any of several aspects of the program: ground and space-based observations; spectral analysis and photoionization modeling of the data; dynamical modeling; AGN feedback associated with the outflows; and relevant atomic calculations. The successful candidate will join an active multi-disciplinary group working on AGN outflows with national and international collaborations, programs on various space- and ground-based telescopes, and superb computational capabilities. This appointment is for two years, renewable for one year depending on performance and available funding. Applicants must complete the faculty application online at [www.jobs.vt.edu](http://www.jobs.vt.edu), posting 081095. Please submit a curriculum vitae and publication listing. Also please arrange for three letters of reference to be sent directly to Dr. Nahum Arav at [arav@vt.edu](mailto:arav@vt.edu) or mail to the address above. Deadline for applications is 1/31/2009. Virginia Tech is an EOE/AAE university, and offers a wide range of networking and development opportunities to women and minorities in science and engineering. Individuals with disabilities desiring accommodations in the application process should notify Ms. Lisa Stables, Physics Department, (540)231-7566, or call TTY 1-800-828-1120. Medical insurance and retirement benefits provided according to Virginia Tech policies.

No. 25294 (New)

Postdoctoral position in extragalactic astronomy

UNIVERSITY OF MARYLAND (COLLEGE PARK)

Department of Astronomy

College Park, MD 20742

USA

Tel: 301-405-0282

FAX: 301-314-9067

Email Submission Address: [veilleux@astro.umd.edu](mailto:veilleux@astro.umd.edu)

Email Inquiries: [veilleux@astro.umd.edu](mailto:veilleux@astro.umd.edu)

Attention: *Sylvain Veilleux, Prof.*

Applications are invited for a postdoctoral research associate position in the Department of Astronomy at the University of Maryland, College Park. In addition to conducting independent research, the successful candidate will work with Professors Sylvain Veilleux and Chris Reynolds on the X-ray properties of active galactic nuclei and ultraluminous infrared galaxies. The successful candidate must have a Ph.D. in Physics, Astronomy or a related field. This will be a two-year appointment, starting no later than September 2009. To apply, please send a CV, bibliography, statement of research interests and accomplishments, and three letters of recommendation to the address above. Electronic applications and recommendation letters are accepted and should be sent to [veilleux@astro.umd.edu](mailto:veilleux@astro.umd.edu). Complete applications received before January 15, 2009 will be given full consideration. The University of Maryland is an EOE employer. Applications from women and minorities are strongly encouraged. Standard University of Maryland benefits will be provided by the employer. See <http://uhr.umd.edu/benefits/> for additional information.

No. 25296 (New)

Postdoctoral Researcher - Enrichment of Star Forming Regions

ARIZONA STATE UNIVERSITY

Arizona State University

PO Box 871404

Tempe, AZ 85287-1404

United states of emrical

Tel: 480-727-6788

FAX: 480-965-6102

URL1: <http://www.asu.edu/>

URL2: <http://sees.asu.edu/>

URL3: <http://concord.asu.edu/>

Email Submission Address: [evan.scannapieco@asu.edu](mailto:evan.scannapieco@asu.edu)

Email Inquiries: [evan.scannapieco@asu.edu](mailto:evan.scannapieco@asu.edu)

Attention: *Evan Scannapieco, Asst. Prof.*

We seek a postdoctoral researcher to contribute to a theoretical program in the chemodynamical evolution of star-forming regions from the primordial to the present-day universe. The successful applicant will also have opportunities to engage in independent research related to cosmic enrichment, mixing, and metal production using the extensive computational facilities of the School of Earth and Space Exploration (SESE) at Arizona State University. The researcher will also have the opportunity to benefit from collaborations within a major new SESE initiative in Cosmology, and a new SESE Astrobiology Institute that will target the physical evolution of life-supporting elements. This position is most suitable for an Astrophysics or Physics Ph.D. with experience in computational astrophysics. This 3 year appointment could begin as early as June 2009. Applications received by February 1, 2009 will receive full consideration. Send a CV and the names of 3 references to [evan.scannapieco@asu.edu](mailto:evan.scannapieco@asu.edu) Prof. Evan Scannapieco School of Earth and Space Exploration Arizona State University PO Box 871404 Tempe AZ 85287-1404. We are an Equal Opportunity/Affirmative Action Employer - all qualified applicants will receive consideration without regard to race, creed, color, sex or national origin. ASU conducts pre-employment screening for all positions which includes a criminal background check, verification of work history, academic credentials, licenses, and certification.

No. 25297 (New)

Postdoctoral Associate in the Gaseous Medium in the Universe

UNIVERSITY OF MICHIGAN

500 Church St.

Department of Astronomy

Ann Arbor, MI 48109-1042

USA

Tel: 734-764-3454

FAX: 734-763-3117

URL1: <http://www.astro.lsa.umich.edu/> (Dept. of Astronomy Website)

Email Submission Address: [jrbregman@umich.edu](mailto:jrbregman@umich.edu)

Email Inquiries: [jrbregman@umich.edu](mailto:jrbregman@umich.edu)

Attention: *Joel N. Bregman, Professor of Astronomy*

The Department of Astronomy at the University of Michigan in Ann Arbor is seeking to hire a postdoctoral associate to work with Prof. Joel Bregman on topics broadly related to the gaseous content of the universe (galactic gas, cluster gas, and the intergalactic medium). The research will involve multiwavelength observations and modeling; expertise in X-ray astronomy is desirable but not essential. Candidates with interests in these topics are encouraged to apply. Candidates must hold a Ph.D. in Astrophysics or equivalent field. Salary will be commensurate with qualifications and experience. The position will initially be for one year and may be extended up to three years, depending on salary and performance and availability of funding. Qualified applicants should send their resume, publication list and a statement of research interests, and arrange for three letters of reference to be sent to [jrbregman@umich.edu](mailto:jrbregman@umich.edu). If an application was sent to Prof. Jon Miller (No. 25131), it can be applied to this position upon your approval (send an email). Review of applications will begin on January 2, 2009 and continue until the position is filled. The University of Michigan is an Affirmative Action/Equal Opportunity Employer. Women and members of minority groups are encouraged to apply.

No. 25298 (New)

Research Associates in the Herschel Lensing Survey

UNIVERSITY OF ARIZONA

933 N. Cherry Ave.

Tucson, AZ 85721-0065

USA

Tel: 520-621-3161

FAX: 520-621-9555

URL1: <http://www.as.arizona.edu> (Steward Observatory home page)

URL2: <http://www.hr.arizona.edu> (University of Arizona Human Resources home page)

URL3: <http://monk.as.arizona.edu/HLS> (The Herschel Lensing Survey home page)

Email Submission Address: [egami@as.arizona.edu](mailto:egami@as.arizona.edu)

Email Inquiries: [egami@as.arizona.edu](mailto:egami@as.arizona.edu)

Attention: *Eiichi Egami, Associate Astronomer*

Applications are invited for two postdoctoral positions at the Steward Observatory, the University of Arizona, to work with Dr. Eiichi Egami on the Herschel extragalactic key program, "The Herschel Lensing Survey" (PI: Egami; 292 hours), with a team of 25 CoIs in the US and EU countries. The project will conduct deep PACS (100/160um) and SPIRE (250/350/500 um) imaging of 40 massive lensing clusters, improving the detection limits for faint sources dramatically by taking advantage of the powerful gravitational lensing power of these clusters. The successful applicants are expected to play leading roles in the project (see <http://monk.as.arizona.edu/HLS> for more detail). Responsibilities of the successful applicants include, (1) to process and analyze the Herschel data in collaboration with the PACS/SPIRE instrument teams, (2) to construct a database of target clusters by assembling all the existing data, and (3) coordinate and conduct ground/space follow-up observations. Research experience in infrared/submillimeter astronomy will be an advantage, but talented applicants with any background will be considered. Although the Herschel-related responsibilities must take priority, the position includes full access to the Steward observing facilities such as the 2x8.4m Large Bore Infrared Telescope, 2x6.5m Magellan Telescopes, 6.5m MMT telescope, 2.3m Bok Telescope, and 10m Submillimeter Telescope. The appointments will be for two years initially with a possibility of a third-year extension based on performance and availability of funding. If Herschel is launched in April 2008 as currently planned, the position must start in September 2009 at the latest. By the starting date, the candidate must have a Ph.D. in Astronomy, Physics, or a related field. To apply, please complete an on-line application for job #42127 at <http://www.hr.arizona.edu>. Please be prepared to attach a cover letter, a curriculum vitae, a list of publications, and a statement of research experience and interests. Please state in the cover letter if the applicant has a strong preference to work on either PACS or SPIRE data. Applicants should also arrange for three letters of recommendation to be sent directly to Dr. Eiichi Egami at the above address. For full consideration, applications should be received by January 31, 2009.

No. 25299 (New)

Research Associate in the Local Cluster Substructure Survey (LoCuSS)

UNIVERSITY OF ARIZONA

933 N. Cherry Ave.

Tucson, AZ 85721-0065

USA

Tel: 520-621-3161

FAX: 520-621-9555

URL1: <http://www.as.arizona.edu> (Steward Observatory home page)

URL2: <http://www.hr.arizona.edu> (University of Arizona Human Resources home page)

URL3: <http://www.arizona.edu/loccuss> (The LoCuSS project home page)

Email Submission Address: [egami@as.arizona.edu](mailto:egami@as.arizona.edu)

Email Inquiries: [egami@as.arizona.edu](mailto:egami@as.arizona.edu)

Attention: *Eiichi Egami, Associate Astronomer*

Applications are invited for a postdoctoral position at the Steward Observatory, the University of Arizona, to work with Dr. Eiichi Egami on the Local Cluster Substructure Survey (LoCuSS). The main scientific goal of LoCuSS is to measure the relationship between the substructure of galaxy clusters and the evolution of the hot gas and galaxies that inhabit them through multi-wavelength observations of ~100 X-ray-luminous clusters at  $z=0$ . The project is led by the group at the University of Birmingham in UK (PI: Graham Smith), and the collaboration includes ~30 investigators covering a broad range of observational/theoretical expertise (see <http://www.arizona.edu/loccuss> for more detail). As part of the LoCuSS project, we will soon be starting a Herschel key program to obtain wide-field (25x25') PACS (100/160um) images of ~30 LoCuSS clusters (PI: G. Smith; NASA-PI: E. Egami; 145 hours). The successful applicant is expected to lead the processing and analysis of these Herschel PACS data and to conduct various ground follow-up observations in collaboration with the Birmingham group and other LoCuSS members (for example, we are about to start spectroscopic follow-up with Hectospec on MMT). We are especially interested in those candidates who can scientifically exploit the excellent multi-wavelength data of the LoCuSS sample. Although the LoCuSS-related work must take priority, the position includes full access to the Steward observing facilities such as the 2x8.4m Large Bore Infrared Telescope, 2x6.5m Magellan Telescopes, 6.5m MMT telescope, 2.3m Bok Telescope, and 10m Submillimeter Telescope. The appointments will be for two years initially with a possibility of a third-year extension based on performance and availability of funding. If Herschel is launched in April 2008 as currently planned, the position must start in September 2009 at the latest. By the starting date, the candidate must have a Ph.D. in Astronomy, Physics, or a related field. To apply, please complete an on-line application for job #42129 at <http://www.hr.arizona.edu>. Please be prepared to attach a cover letter, a curriculum vitae, a list of publications, and a statement of research experience and interests. Applicants should also arrange for three letters of recommendation to be sent directly to Dr. Eiichi Egami at the above address. For full consideration, applications should be received by January 31, 2009.

No. 25301 (New)

Harvard Postdoctoral Fellow in X-ray Astrophysics

HARVARD UNIVERSITY

Harvard-Smithsonian CfA

60 Garden Street MS-6

Cambridge, MA 02138

USA

Tel: 1-617-495-7521

FAX: 1-617-495-7356

URL1: <http://www.cfa.harvard.edu/cfidep/>

Email Submission Address: [jllee@cfa.harvard.edu](mailto:jllee@cfa.harvard.edu)

Email Inquiries: [jllee@cfa.harvard.edu](mailto:jllee@cfa.harvard.edu)

Attention: *Julia Lee, Professor*

Applications are invited for a position as a postdoctoral fellow within the Harvard University Department of Astronomy and Harvard-Smithsonian Center for Astrophysics, to work with Prof. Julia Lee on topics of interest which include one or more of the following: the ISM, IGM, X-ray binaries, AGN, and/or dust. High resolution X-ray spectroscopic studies will be the primary focus, with additional multi-wavelength imaging and spectral analysis, as warranted. The appointee will have additional opportunities to pursue his/her research interests. Candidates must possess a PhD in physics or astrophysics at time of appointment. Demonstrated experience in spectral analysis is desired, but not required. Applicants should be skilled in oral and written communication. This is a 3-year position which will be offered for an initial period of one year, with an extension to a second and third year subject to performance; the expected start date is fall-2009, or earlier. Interested candidates should send (1) a curriculum vitae, (2) a list of publications, (3) a brief statement of research interests, especially as it pertains to any of the aforementioned topics, or other related topics of relevance, and (4) arrange for letters of recommendation sent by three professional scientists familiar with the candidate's research. The closing date for receipt of applications will be 15 February 2009. Harvard University is an Equal Opportunity/Affirmative Action employer. Applications from women and minority candidates are strongly encouraged. Salaries are competitive. Health benefits and some relocation costs will be provided.

No. 25304 (New)

Post-doctoral position - brown dwarfs and very-low-mass objects

VALPARAISO UNIVERSITY, DEPARTMENT OF PHYSICS AND ASTRONOMY

Tel:

**URL1:** <http://dfa.uv.cl> (Department of Physics and Astronomy, UV)

**Email Submission Address:** [radostin.kurtev@uv.cl](mailto:radostin.kurtev@uv.cl)

**Email Inquiries:** [radostin.kurtev@uv.cl](mailto:radostin.kurtev@uv.cl)

**Attention:** Radostin Kurtev

The Valparaiso University, Chile, offers a POSDOCTORAL POSITION funded by ESO/Committee Mixto-Chile. The successful candidate will work with Profs. Radostin Kurtev and Jura Borissova and their collaborators on observational studies of brown dwarfs and stars, and will be encouraged to pursue independent research on related topics. On-going projects include optical/infrared imaging and spectroscopy of young brown dwarfs and very-low-mass objects. The successful candidate will become a member of the science team of "Vista Variables of Via Lactea (VVV) - ESO public survey" (<http://www2.astro.puc.cl/VVV/>) Chile has the greatest concentration of large telescopes in the southern hemisphere. While resident at Universidad de Valparaiso, the fellow will qualify as a member of the Chilean community and be eligible to apply for observing time on all telescopes in Chile, including ESO's VLT, NTT, and 3.6m, Gemini-South, Carnegie's Magellan, CTIO's, SOAR, AAT and APO. The appointment is for two years, is expected to start as soon as possible, and requires the completion of a PhD. Applicants should submit by e-mail a statement of research interests, publication list, CV, and two letters of reference. Full consideration will be given to complete applications received by January 31-th, 2009.

**No. 25306 (New)**

**Post-doctoral position in galaxy formation and ISM modelling**

**CEA SACLAY**

**CEA/DSM/IRFU/SAP**

**GIF SUR YVETTE Cedex, F 91191**

**FRANCE**

**Tel: +33 1 69 08 55 08**

**URL1:** <http://dafa.cea.fr/ifa/> (host institute)

**URL2:** <http://irfu.cea.fr/Projets/COAST/index.htm> (Computational Astrophysics Group at CEA Saclay)

**Email Submission Address:** [frederic.bournaud@cea.fr](mailto:frederic.bournaud@cea.fr)

**Email Inquiries:** [frederic.bournaud@cea.fr](mailto:frederic.bournaud@cea.fr)

**Attention:** Frederic Bournaud

The astrophysical laboratory of CEA-Saclay, near Paris, invites applications for a 2-year postdoctoral position on simulations of galaxy evolution in the cosmological context. Our group performs idealized models of isolated and interacting galaxies as well as simulations of galaxy formation and evolution in the full cosmological context, with a general purpose of understanding the formation history of disks and spheroids. An important part of our projects is to improve the modelling of the ISM in galaxy and cosmological simulations, with a high resolution and over a large range of physical conditions, together with realistic prescriptions for molecular gas formation, star formation and feedback. The post-doctorate will be expected to contribute to these developments within our group. We will use the models to compare with the observed spectroscopic properties in the frame of larger collaborations. While the applicant is primarily expected to work on simulation and modelling issues, he/she will be encouraged to get involved in these collaborations, as well as to pursue his/her own scientific projects, for which he/she will be granted travel money and access to the CEA supercomputers (50TFlops Bull cluster, IBM Blue Gene, and 2TFlops NEC vectorial). The starting date should be in 2009. Applicants should send a CV, list of publications, a short research statement, and 2 to 3 recommendation letters to Frederic Bournaud (frederic.bournaud@cea.fr, email preferred), and feel free to make an email contact for more details on the projects, research group, salary, etc.. The deadline is January 20, 2009. Full medical insurance, maternity leave and retirement plans are part of the benefits offered in the position.

**No. 25308 (New)**

**Postdoctoral Position in Extragalactic Astrophysics**

**UNIVERSITY OF WESTERN ONTARIO**

**Dept of Physics & Astronomy**

**1151 Richmond St**

**London, ON N6A3K7**

**Canada**

**Tel: 519 661-2111 x 81557**

**URL1:** <http://www.physics.uwo.ca> (Department website)

**Email Submission Address:** [pbarmby@uwo.ca](mailto:pbarmby@uwo.ca)

**Email Inquiries:** [pbarmby@uwo.ca](mailto:pbarmby@uwo.ca)

**Attention:** Dr. Pauline Barmby

Applications are invited for a postdoctoral position in observational extragalactic astronomy in the Department of Physics and Astronomy at The University of Western Ontario. The successful candidate will pursue projects with Dr. Pauline Barmby involving resolved stellar populations and star formation in nearby galaxies as well as independent research. Funds will be available for research support and travel. Candidates should have a PhD in astronomy, astrophysics, or physics; experience with extragalactic infrared and/or optical observations is strongly preferred.

The astronomy group at Western Ontario has recently expanded and includes members with interests in planetary science, star formation, hot stars, nearby galaxies, and AGN. The successful candidate will be encouraged to interact with other faculty and to take an active role in mentoring our growing group of graduate students. Affiliation with a Canadian university allows researchers to apply for Canadian time on telescopes including CRFT, Gemini, JCMST, and the E-VLA.

The initial appointment is for one year but may be extended for an additional year subject to satisfactory performance and the availability of funds. The starting date of the position is negotiable but should be no later than September 2009. To apply, please send (electronically if possible) a cover letter, CV with publication list, and contact information for three references to Dr. Pauline Barmby (pbarmby@uwo.ca), by January 31, 2009. The University of Western Ontario is committed to employment equity.

No benefits information has been provided by the employer.

**No. 25309 (New)**

**ESO ALMA Fellowship Programme**

**ESO - EUROPEAN ORGANISATION FOR ASTRONOMICAL RESEARCH IN THE SOUTHERN HEMISPHERE**

**Karl-Schwarzschild-Str. 2**

**Garching near Munich, Bavaria 85748**

**Germany**

**Tel: +49 89 3200 6865**

**FAX: +49 89 3200 6497**

**URL1:** <https://jobs.eso.org/ESOP370/documents/DOC0000176.PDF>

**Email Submission Address:** [ljone.vedsoe@eso.org](mailto:ljone.vedsoe@eso.org)

**Attention:** Lone Vedsoe, Human Resources

**ESO ALMA Fellowship Programme**

The European Organisation for Astronomical Research in the Southern Hemisphere awards several postdoctoral fellowships each year. This programme is open to applicants who have earned (or will have earned) before November 1, 2009, their PhD in astronomy, physics, or related disciplines. The goal of these fellowships is to offer young scientists opportunities and facilities to enhance their research programmes by facilitating close contact between young astronomers and the activities and staff at one of the world's foremost observatories.

With ALMA becoming operational in a few years, ESO offers additional ALMA Fellowships - funded by the Marie-Curie COFUND Programme of the European Community - to complement its regular fellowship programme. Applications by young astronomers with expertise in mm/sub-mm astronomy are encouraged.

For all Fellowships, scientific excellence is the prime selection criterion. Young scientists from all astrophysical fields are welcome to apply.

The selected candidate will work at one of the European institutes hosting an ALMA site: Onsala, Granada, Leiden, Manchester, Onsala) or to stay at ESO in Garching. Fellowships start with an initial contract of one year followed by a two year extension (three years in total). Functional work (in instrumentation, operations, public relations, etc.) is strictly restricted to 25% of the time.

We offer an attractive remuneration package including a competitive salary (tax-free), comprehensive social benefits, and provide financial support for relocating families. Furthermore, an expatriation allowance as well as some other allowances may be added. The Outline of the Terms of Service for Fellows (<http://www.eso.org/public/employment/fellows.html>) provides some more details on employment conditions/benefits. The closing date for applications is 31 January 2009.

Please attach the following documents (in English) to your application:

- your Curriculum Vitae including a list of (refereed) publications - your proposed research plan (max. 2 pages) - a brief outline of your technical/observational experience (max. 1 page)

In addition three letters of reference from persons familiar with your scientific work should be sent directly to [vacancy@eso.org](mailto:vacancy@eso.org) by the application deadline.

Questions not answered by the FAQ page can be sent to: Paola Andreani Tel. +49 89 320 06-576 Fax +49 89 320 06-898 e-mail: [pdandrean@eso.org](mailto:pdandrean@eso.org)

The post is open to suitably qualified male and female applicants.

For further details see teh related URL. <https://jobs.eso.org/ESOP370/documents/DOC0000176.PDF>

**No. 25314 (New)**

**postdoctoral research associate in extragalactic astrophysics and galaxy evolution**

**TEXAS A&M UNIVERSITY**

**Tel:**

**URL1:** <https://tamujobs.tamu.edu> (Texas A&M University human resource site)

**Email Inquiries:** [papovich@physics.tamu.edu](mailto:papovich@physics.tamu.edu)

**Attention:** Casey J Papovich

The Department of Physics at Texas A&M University invites applications for a postdoctoral research associate to work with Dr. Casey Papovich in the field of extragalactic astrophysics and galaxy evolution. Applicants with a research background in observational astronomy and experience with Spitzer Space Telescope data and/or interest in the Herschel Space Observatory, in particular, are encouraged to apply. The specific responsibilities of the position are flexible depending on the interests and background of the applicant.

The successful applicant, while holding an appointment at the Department of Physics at Texas A&M University, will also be a member of the George P. and Cynthia Woods Mitchell Institute for Fundamental Physics and Astronomy. The Mitchell Institute will be located in a new building designed to create an exciting interdisciplinary atmosphere with many opportunities for interaction among Institute members. The goals of the Institute are to explore and advance the understanding of theoretical high energy physics, astroparticle physics, and cosmology; to conduct research in string theory, M-theory, and particle phenomenology; and to explore the interface with observation in particle physics and cosmology. For more information, see <http://mitchell.physics.tamu.edu>.

By the (flexible) start date of September 1, 2009, the applicant must have obtained a PhD in astronomy, physics, or a related field. The initial appointment is for two years, with extension for a third year dependent on satisfactory performance and funding availability. Salary will be commensurate with experience; benefits are outlined at <http://employees.tamu.edu/employees/>. Interested applicants are asked to submit a CV, list of publications, and a statement of current and future research interests. Review of applications will begin on January 5, 2009, and continue until the position is filled. All applications must be submitted via the Texas A&M University website at <https://tamujobs.tamu.edu>. The position NCV is 090261.

Applicants should arrange for three letters of reference to be sent to Dr. Casey Papovich, Texas A&M University, Department of Physics, 4242 TAMU, College Station, Texas 77843-4242. Letters may also be sent in electronic form to [papovich@physics.tamu.edu](mailto:papovich@physics.tamu.edu). Questions regarding this position should be directed to Casey Papovich at [979.862.2704](mailto:979.862.2704) or [papovich@physics.tamu.edu](mailto:papovich@physics.tamu.edu).

Texas A&M University is an equal opportunity and affirmative action employer. We value and foster a diverse research environment. Women and underrepresented minorities are particularly encouraged to apply.

**No. 25316 (New)**

**Postdoctoral Position in Observational Cosmology & Galaxy Evolution**

**CALIFORNIA INSTITUTE OF TECHNOLOGY**

**Tel:**

**URL1:** <http://www.astro.caltech.edu/corse/>

**Email Submission Address:** [alm@astro.caltech.edu](mailto:alm@astro.caltech.edu)

**Email Inquiries:** [esa@astro.caltech.edu](mailto:esa@astro.caltech.edu)

**Attention:** Judy McClain

Applications are invited for an observational postdoctoral position in Richard Ellis' research group at Caltech. Using the Keck and Palomar observatories and space facilities such as Hubble, Spitzer and Galax, the group is working actively on many areas of galaxy evolution, including the earliest systems to determine their assembly history, environmental trends and the origin of internal structures in regular spirals and ellipticals. Ongoing programs in gravitational lensing and studies of both distant and nearby supernovae are being used to explore the prospects for constraining the properties of dark matter and dark energy. The successful candidate will have a Ph.D. in physics or astronomy and relevant observational experience and will be encouraged to develop their own research programs on Caltech's facilities. The position is available from Fall 2009 (or sooner) and is for two years with the possibility of renewal for a third year, depending on available funds. Send CV, bibliography, statement of research interests and 3 letters of recommendation to the above address.

All materials should be received by January 31, 2009.

Caltech is an Equal Opportunity/Affirmative Action employer. Women, minorities, veterans and disabled persons are encouraged to apply.

**No. 25317 (New)**

**Post Doctoral Research Associate in X-ray Astronomy**

**DEPARTMENT OF ASTRONOMY, UNIVERSITY OF VIRGINIA**

**530 McCormick Road**

**P.O. Box 400325**

**Charlottesville, VA 22904-4325**

**USA**

**Tel: 1-434-924-4903**

**FAX: 1-434-924-3104**

**URL1:** <http://www.astro.virginia.edu/~cls71/> (<http://www.astro.virginia.edu/~cls71/>)

**Email Submission Address:** [sarazin@virginia.edu](mailto:sarazin@virginia.edu)

**Email Inquiries:** [sarazin@virginia.edu](mailto:sarazin@virginia.edu)

**Attention:** Craig L. Sarazin, Professor

Applications are invited for a postdoctoral research associate position in X-ray astronomy at the University of Virginia. The position will involve the analysis of data from X-ray observations with Chandra, XMM/Newton, Suzaku, and Swift, in collaboration with Craig Sarazin. The X-ray observations will be focussed mainly on clusters of galaxies and elliptical galaxies, but may also involve X-ray data on other classes of objects, such as supernova remnants, globular clusters, X-ray binaries, or spiral galaxies. Sarazin is also involved with a Key Project on Herschel to measure the infrared spectra of brightest cluster galaxies in cool core clusters, and it is possible the post-doc would work on this data. The position may also involve the analysis of related optical, radio, UV, or IR observations, or related theoretical work. It is likely that a successful applicant will also collaborate on the preparation of proposals for additional observations or theoretical modeling. The positions are initially for two years, with a possible extension for a third year. I would like the post-doc to start in September 2009, although this is negotiable.

Applicants should send a curriculum vitae, a publication list, and a letter outlining relevant interests and experience, and arrange to have three letters of recommendation sent to the above address. Complete applications should be received by January 15, 2009 for full consideration. Women and minorities are encouraged to apply.

Medical and dental insurance, retirement, others.

**No. 25322 (New)**

**PS1 Science Consortium Postdoctoral Researcher - ID# 28631**

**INSTITUTE FOR ASTRONOMY**

**Tel:**

**URL1:** [www.rcuh.com](http://www.rcuh.com)

**URL2:** [ifa.hawaii.edu](http://ifa.hawaii.edu)

**Email Inquiries:** [chambers@ifa.hawaii.edu](mailto:chambers@ifa.hawaii.edu)

**Attention:** RCUH Human Resources

Regular, F/T, RCUH Non-Civil Service positions w/ the Institute for Astronomy in Honolulu.

Salary: Commensurate w/ qualifications.

Duties: Participates in the Pan-STARRS survey w/ the PS1 telescope. Helps w/ operation of Pan-STARRS Image Processing Pipeline. Verifies working capabilities of PS1 system & recommends improvements & modifications. Serves as scientific data reduction & analysis liaison w/ one of the PS1 Science Consortium Member Institutions & the Pan-STARRS Image Processing Pipeline software team. Promotes access & analysis of PS1 data & metadata.

Minimum Qualifications: PhD in Astronomy or Physics. Expert w/ software development tools & processes including bug tracking, source control & API specification. Scientific background in astronomy. Knowledge of UNIX operating system. Demonstrated capability of analysis of data from wide-field imaging cameras & proficiency in C programming. Able to work at 14,000 ft & pass high-altitude medical exam.

Inquiries: Dr. Kenneth Chambers 956-9844 (Oahu).

Application Requirements: Please go to [www.rcuh.com](http://www.rcuh.com), click on "Employment" and navigate to "Job Announcements/Apply for a Job." You may also submit a curriculum vitae, including list of publications; cover letter

including Recruitment ID#, referral source, narrative of qualifications for position and copy of degree(s)/transcripts/certificate(s) to qualify for position by fax (808)956-5022 or mail to Research Corporation of the University of Hawaii, 2530 Dole Street, Sakamaki Hall D-100, Honolulu, HI 96822 before closing date. Please also submit three letters of reference sent confidentially to the same address by closing date. If you have questions on the application process and/or need assistance, call (808)956-3100.  
Closing Date: 02/16/09. EEO/AA Employer.  
Regular: F/T, RCUH Non-Civil Service positions w/ the Institute for Astronomy in Honolulu.  
Salary: Commensurate w/ qualifications.  
Duties: Participates in the Pan-STARRS survey w/ the PS1 telescope. Helps w/ operation of Pan-STARRS Image Processing Pipeline. Verifies working capabilities of PS1 system & recommends improvements & modifications. Serves as scientific data reduction & analysis liaison between one of the PS1 Science Consortium Member Institutions & the Pan-STARRS Image Processing Pipeline software team. Promotes access & analysis of PS1 data & metadata.  
Minimum Qualifications: PhD in Astronomy or Physics. Expert w/ software development tools & processes including bug tracking, source control & API specification. Scientific background in astronomy. Knowledge of UNIX operating system. Demonstrated capability of analysis of data from wide-field imaging cameras & proficiency in C programming. Able to work at 14,000 ft & pass high-altitude medical exam.  
Inquiries: Dr. Kenneth Chambers 956-9844 (only).  
Application Requirements: Please go to [www.rcuh.com](http://www.rcuh.com), click on "Employment" and navigate to "Job Announcements/Apply for a Job." You may also submit a curriculum vitae, including list of publications; cover letter including Recruitment ID#, referral source, narrative of qualifications for position and copy of degree(s)/transcripts/certificate(s) to qualify for position by fax (808)956-5022 or mail to Research Corporation of the University of Hawaii, 2530 Dole Street, Sakamaki Hall D-100, Honolulu, HI 96822 before closing date. Please also submit three letters of reference sent confidentially to the same address by closing date. If you have questions on the application process and/or need assistance, call (808)956-3100.  
Closing Date: 02/16/09. EEO/AA Employer.

**No. 25324 (New)**  
**HAT-South postdoctoral fellow in exoplanet research**  
**HARVARD-SMITHSONIAN CENTER FOR ASTROPHYSICS**  
**TeI:** [http://www.cfa.harvard.edu/vgbakos/H5 \(HAT-South page\)](mailto:gbakos@cfa.harvard.edu)  
**Email Inquiries:** [gbakos@cfa.harvard.edu](mailto:gbakos@cfa.harvard.edu)  
**Attention:** [gbakos@cfa.harvard.edu](mailto:gbakos@cfa.harvard.edu)

The discovery and characterization of transiting extrasolar planets is a vigorous and exciting research field in astronomy today. Based on the success of the HATNet project, a much enhanced survey on the Southern hemisphere is being launched. HAT-South will be the first global network dedicated to transiting planet search. With three stations around the globe (Australia, Namibia and Chile), it will provide a unique, high precision, 24-hour data-stream on millions of stars brighter than 14th magnitude. It is expected to provide a major advance in the ground-based detection of transiting extrasolar planets, which in return will lead to improved understanding of the nature and origin of planetary systems and of their remarkable diversity. We are searching for a postdoctoral fellow who would participate actively in the research program at the stimulating work environment of Center for Astrophysics (CFA), including obtaining, interpreting, and publishing results. The fellow would be part of the international team that consists of members from the partner institutions: CFA, Max Planck Institute for Astronomy, and the Australian National University, and would work closely with the other members of the project, and also in remote operation of the Chilean site at Las Campanas. In addition, the successful candidate would take part in many (but not necessarily all) aspects of the project, such as: overseeing operations, data flow and analysis, related software development, follow-up observations (photometry and spectroscopy), interpretation of the data, and communication of the scientific results. The candidate should have thorough experience with Linux work environment, with GNU/Linux-based development in C/C++ and/or Python being an advantage. Expertise in one or more of the following areas is desirable: experience with several programming languages (shell, MySQL, PHP, TCL), shared code development (subversion), instrumentation skills, firm mathematical knowledge with focus on algorithms and statistics. Other relevant (but not essential) experience: time-series analysis, massive data analysis, photometry, stellar spectroscopy. Applicants should send a cover letter, CV, list of publications, and a description of research accomplishments and relevant technical experience (3pgs) to the email address above. They should arrange for three letters of recommendation to be sent to the same address. The appointment is for two years, with possible renewal up to four years, and is expected to start as early as April 2009. Initial funding is approx. USD 54000/yr plus health benefits. The discovery and characterization of transiting extrasolar planets is a vigorous and exciting research field in astronomy today. Based on the success of the HATNet project, a much enhanced survey on the Southern hemisphere is being launched. HAT-South will be the first global network dedicated to transiting planet search. With three stations around the globe (Australia, Namibia and Chile), it will provide a unique, high precision, 24-hour data-stream on millions of stars brighter than 14th magnitude. It is expected to provide a major advance in the ground-based detection of transiting extrasolar planets, which in return will lead to improved understanding of the nature and origin of planetary systems and of their remarkable diversity. We are searching for a postdoctoral fellow who would participate actively in the research program at the stimulating work environment of Center for Astrophysics (CFA), including obtaining, interpreting, and publishing results. The fellow would be part of the international team that consists of members from the partner institutions: CFA, Max Planck Institute for Astronomy, and the Australian National University, and would work closely with the other members of the project, and also in remote operation of the Chilean site at Las Campanas. In addition, the successful candidate would take part in many (but not necessarily all) aspects of the project, such as: overseeing operations, data flow and analysis, related software development, follow-up observations (photometry and spectroscopy), interpretation of the data, and communication of the scientific results. The candidate should have thorough experience with Linux work environment, with GNU/Linux-based development in C/C++ and/or Python being an advantage. Expertise in one or more of the following areas is desirable: experience with several programming languages (shell, MySQL, PHP, TCL), shared code development (subversion), instrumentation skills, firm mathematical knowledge with focus on algorithms and statistics. Other relevant (but not essential) experience: time-series analysis, massive data analysis, photometry, stellar spectroscopy. Applicants should send a cover letter, CV, list of publications, and a description of research accomplishments and relevant technical experience (3pgs) to the email address above. They should arrange for three letters of recommendation to be sent to the same address. The appointment is for two years, with possible renewal up to four years, and is expected to start as early as April 2009. Initial funding is approx. USD 54000/yr.

**No. 25325 (New)**  
**Postdoctoral Research Scientist in Extragalactic Astrophysics and/or Astronomical Instrumentation**  
**COLUMBIA UNIVERSITY**  
**550 West 120th Street**  
**1326 Pupin Hall, MC 5246**  
**New York, NY 10027**  
**US**  
**TeI: (212) 854-7819**  
**URL1:** <http://sgl.astro.columbia.edu/>  
**Email Submission Address:** [ds@astro.columbia.edu](mailto:ds@astro.columbia.edu)  
**Email Inquiries:** [ds@astro.columbia.edu](mailto:ds@astro.columbia.edu)  
**Attention:** David Schiminovich, Professor  
Columbia University Astrophysics Laboratory invites applications for a postdoctoral researcher in extragalactic astrophysics and/or astronomical instrumentation. Experience in the latter is sought, but strong applicants with no instrumentation experience will also be given serious consideration. The successful applicant will work with Professor David Schiminovich and his research group performing detailed analysis or developing UV/optical instrumentation to study star formation, galaxy evolution and its connection with the diffuse interstellar and intergalactic medium (the "Cosmic Web"). Work may include analysis and interpretation of multiwavelength data from the GALEX and Spitzer observatories as well as other on-going projects being conducted by the group (e.g., the FIREBALL experiment). Other responsibilities may include any of the following: designing and fabricating novel instrumentation, developing instruments for ground- and space-based applications; analysis, modeling and interpretation of data from wide and deep multiwavelength galaxy surveys; and publication of scientific results. The successful applicant will have access to time at the MDM observatory and will be encouraged to submit proposals to other observatories. The applicant may also be involved in projects performed in collaboration with the GALEX science team. Candidates should have obtained, by the starting date, a Ph.D. in astronomy, physics or equivalent, in an area relevant to these projects. Experience with extragalactic astronomy and/or development of astronomical instrumentation is highly desirable. The appointment is for two years with the possibility of renewal for an additional year, to start in Fall 2009. To apply, please send email (if preferred) resume, publication list, and statement of research interests to the above address as soon as possible, and have three letters of reference forwarded to the same address. All material should arrive no later than 2009 January 31, although applications will be accepted until the position is filled. Columbia University is an Equal Opportunity/Affirmative action employer. Women and minorities are encouraged to apply. As a Postdoctoral Research Scientist, you will be eligible to choose from CU's health insurance options and for CU dental plan. For this and for further benefits information, you may refer to your HR website link below. <http://www.columbia.edu/hr/documents/benefits-robib2009/pdf-ver.pdf>

**No. 25326 (New)**  
**HAT-South postdoctoral fellow in exoplanet research**  
**HARVARD-SMITHSONIAN CTR FOR ASTROPHYSICS**  
**TeI:** [http://www.cfa.harvard.edu/vgbakos/H5 \(HAT-South page\)](mailto:gbakos@cfa.harvard.edu)  
**Email Inquiries:** [gbakos@cfa.harvard.edu](mailto:gbakos@cfa.harvard.edu)  
**Attention:** [gbakos@cfa.harvard.edu](mailto:gbakos@cfa.harvard.edu)

The discovery and characterization of transiting extrasolar planets is a vigorous and exciting research field in astronomy today. Based on the success of the HATNet project, a much enhanced survey on the Southern hemisphere is being launched. HAT-South will be the first global network dedicated to transiting planet search. With three stations around the globe (Australia, Namibia and Chile), it will provide a unique, high precision, 24-hour data-stream on millions of stars brighter than 14th magnitude. It is expected to provide a major advance in the ground-based detection of transiting extrasolar planets, which in return will lead to improved understanding of the nature and origin of planetary systems and of their remarkable diversity. We are searching for a postdoctoral fellow who would participate actively in the research program at the stimulating work environment of Center for Astrophysics (CFA), including obtaining, interpreting, and publishing results. The fellow would be part of the international team that consists of members from the partner institutions: CFA, Max Planck Institute for Astronomy, and the Australian National University, and would work closely with the other members of the project, and also in remote operation of the Chilean site at Las Campanas. In addition, the successful candidate would take part in many (but not necessarily all) aspects of the project, such as: overseeing operations, data flow and analysis, related software development, follow-up observations (photometry and spectroscopy), interpretation of the data, and communication of the scientific results. The candidate should have thorough experience with Linux work environment, with GNU/Linux-based development in C/C++ and/or Python being an advantage. Expertise in one or more of the following areas is desirable: experience with several programming languages (shell, MySQL, PHP, TCL), shared code development (subversion), instrumentation skills, firm mathematical knowledge with focus on algorithms and statistics. Other relevant (but not essential) experience: time-series analysis, massive data analysis, photometry, stellar spectroscopy. Applicants should send a cover letter, CV, list of publications, and a description of research accomplishments and relevant technical experience (3pgs) to the email address above. They should arrange for three letters of recommendation to be sent to the same address. The appointment is for two years, with possible renewal up to four years, and is expected to start as early as April 2009. Initial funding is approx. USD 54000/yr plus health benefits. Health benefits provided.

**No. 25327 (New)**  
**Postdoctoral Researcher**  
**ROCHESTER INSTITUTE OF TECHNOLOGY**  
**54 Lomb Memorial Drive**  
**COS/CIS, 76-2246**  
**Rochester, NY 146235604**  
**United States**  
**TeI:** <http://www.cis.rit.edu/~edffnci/>  
**URL1:** <http://ritd.cis.rit.edu/>  
**URL2:** <http://astro.physics.rit.edu/>  
**Email Submission Address:** [figer@cis.rit.edu](mailto:figer@cis.rit.edu)  
**Email Inquiries:** [figer@cis.rit.edu](mailto:figer@cis.rit.edu)

**Attention:** Don Figer, Director, Rochester Imaging Detector Lab  
Rochester Institute of Technology invites applications from postdoctoral researchers to pursue research with Dr. Don Figer and Dr. Ben Davies (Leeds). This position is for 2 years with possible extension to 3 years. The position includes funding for travel to observing facilities and conferences. We seek an energetic postdoctoral scholar to work in the field of massive stars, young massive clusters, the recent star-forming history of the Galaxy, and supernova progenitors using existing data from HST, Spitzer, Chandra, Keck, Gemini, and the VLT. The successful candidate will be expected to lead the effort in analyzing the data, writing papers, presenting results at conferences, proposing additional observations, and supervising data analysts and graduate students. Experience with near-infrared astronomical observations, data reduction and spectroscopy is desirable. Applicants must have a PhD. RIT hosts a rich set of research efforts in a broad range of topics, e.g. supermassive black holes, dark energy, gravitational waves, supernovae, massive stars, the Galactic center, star formation, clusters of galaxies, Active Galactic Nuclei, astro-informatics, computational astrophysics, and instrument and detector development. The faculty regularly obtain data from the most advanced facilities in the world, through observations with HST, Gemini, VLT, VLA, Keck, XMM, Chandra and LIGO, and they are developing the next generation of exciting astrophysics facilities through currently funded programs, including JWST, LSST, IDEX, TMT, SOFAR. Rochester offers outstanding cultural and outdoor activities. It was recently ranked the number one city in the nation in overall quality of life, and in the top ten in affordable housing, commuting, and low crime. It is the third largest city in NY State, located in upstate NY, on the shore of Lake Ontario. Rochester is close to the Finger Lakes region, Niagara Falls, and Toronto. Rochester has a world class orchestra and outstanding museums and is listed as one of the "top ten best cities for families." Inquiries about this position may be directed to Dr. Don Figer ([figer@cis.rit.edu](mailto:figer@cis.rit.edu)). Apply online at <https://mycareer.rit.edu>. Search for IRC #27355. Applications should be submitted as one PDF file that includes a cover letter, a CV, and a statement of research interests. Applicants should also provide names of three references. The post will remain open until filled. <http://fhw.rit.edu/humanresources/>

**No. 25330 (New)**  
**Postdoctoral Position in Supernova Remnant Research**  
**RUTGERS UNIVERSITY**  
**Department of Physics and Astronomy**  
**136 Frelinghuysen Road**  
**Piscataway, NJ 08854-8019**  
**USA**  
**TeI: 732-445-5500 x2531**  
**FAX: 732-445-8187**  
**URL1:** [http://www.physics.rutgers.edu/~sajackbh/ \(Hughes Research Website\)](http://www.physics.rutgers.edu/~sajackbh/)  
**URL2:** [http://www.physics.rutgers.edu/~ast/rgroup-asf.html \(Rutgers Astrophysics Group Website\)](http://www.physics.rutgers.edu/~ast/rgroup-asf.html)  
**Email Submission Address:** [nancy@physics.rutgers.edu](mailto:nancy@physics.rutgers.edu)  
**Email Inquiries:** [sajackbh@physics.rutgers.edu](mailto:sajackbh@physics.rutgers.edu)  
**Attention:** Nancy DeHaan, Astro Group Secretary

Applications are solicited for a postdoctoral position to work with J. Hughes in the Department of Physics and Astronomy at Rutgers University. The successful candidate will work on new deep Chandra and Suzaku data on the Tycho supernova remnant and will join a group of supernova remnants intended to address questions of the shock acceleration of cosmic rays, nucleosynthesis, and the nature of core collapse and thermonuclear supernovae. Rutgers has access to SALT, an 11-meter spectroscopic telescope in South Africa, which will become available for use in mid-2009. The initial appointment is for one year with renewal for up to two more years, if mutually agreeable and subject to the availability of funds. Excellence in research, observational or theoretical experience relevant to the research area is mentioned above and the ability to successfully utilize new facilities are the prime criteria for consideration. Interested candidates should forward a curriculum vitae, bibliography, and statement of research interests to the above address as soon as possible. Applicants should also arrange to have letters of recommendation sent from three professional scientists. Applications from qualified women and minority candidates are encouraged.

**No. 25332 (New)**  
**Postdoctoral Research Position in Galaxy Evolution**  
**CALIFORNIA INSTITUTE OF TECHNOLOGY**  
**1200 E. California Blvd.**  
**MC 105-24**  
**Pasadena, CA 91125**  
**USA**  
**TeI: 626-395-4970**  
**FAX: 626-568-9352**

URL1: <http://www.astro.caltech.edu>  
Email Submission Address: [jlm@astro.caltech.edu](mailto:jlm@astro.caltech.edu)

Attention: Andrew Blain, Professor

Applications are invited for a postdoctoral research position at the California Institute of Technology.

The successful applicant will work with Andrew Blain on topics related to galaxy evolution, specifically on data that will be obtained using approved Herschel Space Observatory program in both open and guaranteed time for deep imaging with the SPIRE Far-IR/submm camera behind rich galaxy clusters. The successful applicant will also be encouraged to get involved with the science team on the forthcoming NASA WISE mission, and to develop new and independent research initiatives.

The appointment will be made for an initial period of two years with the possibility for an extension to three years, contingent on satisfactory performance and available funding.

The starting date would be Summer/Fall 2009. Applicants should send a cover letter with a curriculum vitae, publication list, and description of research interests and experience and arrange for three letters of recommendation to be sent directly to above address. Completed applications received by January 31, 2009 are assured full consideration.

Caltech is an Affirmative Action/Equal Opportunity Employer. Women, Minorities, Veterans, and Disabled Persons are encouraged to apply.

No benefits information has been provided by the employer.

**No. 25342 (New)**

**Postdoctoral Position on the Dark Energy Survey Data Management Team**

**UNIVERSITY OF ILLINOIS**

**Department of Astronomy**

**1002 West Green Street**

**Urbana, IL 61801**

**USA**

**Tel: 217-333-9239**

**FAX: 217-244-7638**

**URL1: <http://cosmology.uiuc.edu/DES> (DES/ DESDM Site)**

**URL2: <http://www.darkenergysurvey.org> (DES Site)**

**URL3: <http://cosmology.uiuc.edu/~jmohr> (PI HomePage)**

**Email Submission Address: [jmohr@illinois.edu](mailto:jmohr@illinois.edu)**

**Email Inquiries: [jmohr@illinois.edu](mailto:jmohr@illinois.edu)**

Attention: Joseph Mohr, Professor

We seek a postdoctoral scholar to join us in the development of the data management system for the Dark Energy Survey (DES). DES is a deep optical imaging survey of 25% of the extragalactic sky that will be used to study the formation of structure and to measure the expansion history of the universe using several complementary techniques. The DES data management team is building the cyberinfrastructure required to process, calibrate, archive and serve the optical imaging data that will be produced by DES starting in October 2011 and continuing through 2016. We have designed and are developing a data management system to operate on the NSF and DOE supported high performance computing environments (i.e. TeraGrid, Open Science Grid). The successful candidate will have the opportunity to develop data processing and analysis algorithms for automated operation on supercomputers. The candidate's contributions will earn them DES membership and data rights, and they will be invited to join the DES science working groups.

Moreover, processing and scientific analysis algorithms can be tested on existing optical imaging datasets such as those from the Blanco Cosmology Survey, the Southern Cluster Survey and other South Pole Telescope optical follow-up projects.

Candidates must have a PhD in astronomy or physics and experience in software development. Interested applicants must submit a CV, publication list and research statement by January 31, 2009. Three letters of recommendation should be sent directly to Professor Mohr. Submitting application materials by email is encouraged. We plan to fill this position in Spring or Summer 2009.

Full medical insurance and retirement benefits together with 25 days of paid leave per year are a standard part of the benefits package for all employees of the University of Illinois, and these would extend to the person hired through this advertisement.

**No. 25351 (New)**

**Post-doctoral Researcher in OBSERVATIONAL ASTROPHYSICS**

**UNIVERSITY OF OXFORD**

**Denys Wilkinson Building**

**Keble Road**

**Oxford, Oxon OX1 3RH**

**UK**

**Tel: +44 (0)1865 73302**

**FAX: +44 (0)1865 73390**

**URL1: <http://www.physics.ox.ac.uk/astro/jobs/> (Further Particulars)**

**Email Submission Address: [sec@astro.ox.ac.uk](mailto:sec@astro.ox.ac.uk)**

**Email Inquiries: [vaimesa.ferrero@physics.ox.ac.uk](mailto:vaimesa.ferrero@physics.ox.ac.uk)**

Attention: Vanessa Ferrero-Wood, Mrs

The Department of Physics invites applications for a post-doctoral position in observational astrophysics, to work with Prof Joseph Silk and Dr Sugata Kaviraj. The appointment, to commence in 1 May 2009, will be for 1.5 years with possible extension up to 3 years, contingent on funding.

The work will focus on the analysis of multi-wavelength (UV to near-infrared) Hubble Space Telescope (HST) images of local SO galaxies from the forthcoming Wide Field Camera 3 (WFC3). The imaging is part of the WFC3 Early-Release Science program. The project consists of exploring, in detail, the recent star formation histories of early-type galaxies by probing their internal young substructure and globular cluster populations.

The successful candidate is likely to have experience in the analysis of multi-wavelength imaging of unresolved stellar populations and the interstellar medium in other galaxies. Experience with HST data and the use of stellar population synthesis models is desirable but not necessary. The candidate will be capable of initiating research in a lively group with significant interaction between theory and observation.

The post-holder will have the opportunity to engage in teaching for up to 3 hours per week during term. The starting salary is from £28,839 to £38,757 pa depending on skills and experience. A benefits package and a research budget for travel and other expenses will be provided.

Further particulars are available from <http://www.physics.ox.ac.uk/astro/jobs/>. Applicants should send a statement of research interests, curriculum vitae, list of publications, and the names and addresses of three referees by the closing date of 31 January 2009, quoting reference DB08008. Email submission is preferred. In addition candidates should arrange for letters from the referees to be sent to [sec@astro.ox.ac.uk](mailto:sec@astro.ox.ac.uk) by the closing date.

<http://www.physics.ox.ac.uk/astro/jobs/>

**No. 25066**

**Postdoctoral Appointments with the Fermi Gamma-ray Space Telescope**

**STANFORD UNIVERSITY**

**Tel:**

**URL1: <http://glst.stanford.edu> (Fermi Gamma-ray Space Telescope Program)**

**URL2: <http://astro.stanford.edu> (Office of Postdoctoral Affairs at Stanford University)**

**Email Submission Address: [lucyzhou@stanford.edu](mailto:lucyzhou@stanford.edu)**

Attention: Lucy Zhou

Stanford University invites applications for postdoctoral positions with the Fermi Gamma-ray Space Telescope program (<http://glst.stanford.edu>). The Fermi observatory was launched by NASA in June 2008 and is now carrying out observations for a minimum of 5 years. Stanford University is the PI institution of the international collaboration that constructed the primary instrument on Fermi, the Large Area Telescope (LAT).

We are seeking highly motivated postdoctoral research associates with experience in extensive numerical calculations. Research experience in astrophysics, high-energy physics, or astronomy is required. Candidates should be familiar with at least one of the following topics: gamma-ray production mechanisms, theory of cosmic ray propagation in the Galaxy and/or the heliosphere, modeling and interpretation of astrophysical gamma-ray sources and/or neutrinos. Broader research interests will be considered favorably.

Successful candidates will participate in ongoing research, particularly analysis of LAT data and related multiwavelength observations. Currently, the Stanford group is developing models of cosmic ray propagation in the Galaxy and diffuse gamma-ray emission models (both Galactic and extragalactic) and is developing theoretical models of gamma-ray sources. The successful candidate(s) will work closely with staff scientists and faculty at Stanford.

The appointment(s) will be at the postdoctoral level at Stanford University. Position(s) will be offered for an initial period of two years, with extension to a third year subject to performance and funding availability. At minimum, candidates must possess a PhD or equivalent in physics or astrophysics. Starting annual salary depends on experience but will be in the range of \$50,000 to \$60,000, plus fringe benefits.

Interested candidates should submit a curriculum vitae, list of publications, statement of research interests and the names of three professional scientists who are familiar with the applicant's work and who could provide recommendations. Applications will be reviewed beginning December 1, 2008 and the positions kept open until filled. Anticipated starting date is June 2009 but start date is negotiable. Electronic submissions are highly encouraged. Please submit applications to Lucy Zhou at [lucyzhou@stanford.edu](mailto:lucyzhou@stanford.edu). For further information, contact Prof. Peter Michelson at [peterm@stanford.edu](mailto:peterm@stanford.edu).

**No. 25081**

**Postdoctoral Scholar in Astronomy & Astrophysics**

**UNIVERSITY OF CHICAGO**

**Department of Astronomy & Astrophysics**

**5640 S. Ellis Ave.**

**Chicago, IL 60637**

**USA**

**Tel: 773-834-0393**

**Email Submission Address: [jmsmith@oddjob.uchicago.edu](mailto:jmsmith@oddjob.uchicago.edu)**

**Email Inquiries: [hchen@oddjob.uchicago.edu](mailto:hchen@oddjob.uchicago.edu)**

Attention: Jennifer Smith, Department Administrator

The Department of Astronomy and Astrophysics at the University of Chicago invites applications for a postdoctoral position to start in the Fall of 2009. The successful applicant will be working with Professor Hsiao-Wen Chen on a broad range of projects in extragalactic research, including QSO absorption line analysis and modeling, faint galaxy statistics, and gamma-ray burst afterglow follow-up studies.

The appointment will be renewed annually for up to three years. Applicants should have a Ph.D. in Astronomy or Physics, and are experienced in processing and analyzing spectroscopic data. The Department has 17% share of the 3.5-meter ARC telescope in New Mexico, and members of our Department are also actively involved with the Kavli Institute for Cosmological Physics at Chicago. The successful applicant is encouraged to take advantage of available resources and to develop his/her own research projects.

Applicants should submit a curriculum vitae, a brief statement of research interests and experience, and arrange for three letters of recommendation to be sent by 15 January 2009. Applications, including reference letters, can be sent electronically (in postscript or PDF format) to [jmsmith@oddjob.uchicago.edu](mailto:jmsmith@oddjob.uchicago.edu) or by mail to: Jennifer Smith, Department of Astronomy and Astrophysics, University of Chicago, 5640 S. Ellis Ave., Chicago, IL, 60637.

Inquiries can be directed to [hchen@oddjob.uchicago.edu](mailto:hchen@oddjob.uchicago.edu).

**No. 25095**

**Postdoctoral Position in Exosolar Planet High-Contrast Imaging**

**PRINCETON UNIVERSITY**

**D218 Engineering Quad**

**Princeton University**

**Princeton, NJ 08544**

**United States**

**Tel:**

**URL1: [jobs.princeton.edu](http://jobs.princeton.edu)**

**Email Submission Address: [maureen@princeton.edu](mailto:maureen@princeton.edu)**

**Email Inquiries: [kcasdin@princeton.edu](mailto:kcasdin@princeton.edu)**

Attention: Maureen Hickey, Dept. Manager

Princeton University's Mechanical and Aerospace Engineering Department and the Department of Astrophysical Sciences invite applications for a postdoctoral research associate position starting February, 2009 or later. A Ph.D. in Mechanical and Aerospace Engineering, Astronomy, Optics, Physics, Applied Physics, or a related area is required.

The position supports work in our laboratory in high-contrast imaging. The high-contrast laboratory at Princeton works with NASA on the development of concepts for searching for and characterizing extrasolar planets. We are looking for an excellent experimentalist with laboratory optics experience. The successful candidate will help develop advanced coronagraph designs, test new techniques and algorithms for high-contrast imaging, and support advanced adaptive optics development (on the ground and in space) for astronomical imaging. Appointments are for one year, renewable annually based on satisfactory performance and available funding, for a total of up to three years.

**No. 25145**

**Postdoctoral Fellowships in Astrophysics**

**NAVAL RESEARCH LABORATORY**

**4555 Overlook Ave., SW**

**Washington, DC 20375**

**USA**

**Tel: 202-767-0668**

**FAX: 202-404-8894**

**URL1: <http://www.nrl.navy.mil/>**

**Email Submission Address: [Namir.Kassim@nrl.navy.mil](mailto:Namir.Kassim@nrl.navy.mil)**

**Email Inquiries: [Namir.Kassim@nrl.navy.mil](mailto:Namir.Kassim@nrl.navy.mil)**

Attention: Namir Kassim, Research Physicist

The Remote Sensing Division of the Naval Research Laboratory (NRL) (<http://www.nrl.navy.mil/>) is seeking postdoctoral applications from those with an interest in radio astronomy. The successful candidate will be expected to carry out innovative research programs in

1. Any area of astrophysics where existing or planned low-frequency radio observations (e.g., with E/VLA, VLA, Arecibo, GMRT,GBT, LWA, LOFAR) may contribute, such as high-redshift radio galaxies, clusters of galaxies, supernova remnants and pulsars, studies of propagation effects, searches for extrasolar planets, or the solar system (e.g., Jupiter or the Sun);

2. Radio astronomy digital signal processing or radio frequency interference (RFI) mitigation techniques; or

3. Imaging and calibration algorithm development for the emerging suite of telescopes, including the Long Wavelength Array (LWA) and the EVLA.

NRL radio astronomers carry out a wide range of observational programs at the VLA, VLA, and the GBT, with a primary focus on the 74 and 330 MHz VLA and 330 MHz VLA systems. The NRL-NRAO 74 MHz VLA system, with its 25 km baselines, is the highest angular resolution, highest sensitivity, low-frequency radio interferometer in operation today. Observational programs, such as the VLA Low-frequency Sky Survey (<http://lwa.nrl.navy.mil/VLSS/>) and 74 and 330 MHz Galactic center (<http://rsd-www.nrl.navy.mil/7213/lajo/GC/>) observing programs are pursued both for their science and also to address challenges for future low-frequency interferometers. NRL is also part of the Southwest Consortium (SWC), a University-based consortium led by the University of New Mexico (UNM), that is developing the Long Wavelength Array (LWA) (<http://lwa.unm.edu/>). The LWA will explore the relatively neglected frequency regime below 80 MHz, by capitalizing on breakthrough ionospheric calibration techniques that finally permit development of very low frequency arrays larger than ~ 5 km. The ~ 400-km diameter LWA will realize improvements in both angular resolution and sensitivity by at least 2-3 orders of magnitude. The LWA frequency range favors studies of non-thermal and coherent (both known and unknown) emission sources, unique absorption processes, and provides an intrinsic link to shock physics, high-energy phenomena, and the high-red-shift Universe.

Successful candidates are normally resident at NRL in Washington, but the option exists for residency in New Mexico, proximate to the University of New Mexico's Long Wavelength Array program. Postdoctoral applications should be pursued through the National Research Council (NRC). NRL-NRC Associateships are awarded to persons who have held their doctorate for less than five years at the time the award is offered. Awards are for two years. Applicants will need to submit an original research proposal to be approved by the NRL-NRC advisor for subsequent evaluation by an external review panel chosen by the NRC. US citizenship or legal US permanent residency is required. Application materials can be obtained at <http://www.nas.edu/rap>. Deadlines for applications include February 1, May 1, and August 1. For further information contact

Dr. Namir Kassim at the above address. EOE/AE

**No. 25181**

**Postdoctoral Scholar in DEEP Project**

**UNIVERSITY OF CALIFORNIA, SANTA CRUZ**

**University of California, Santa Cruz**

**1156 High Street**

**Santa Cruz, CA 95064**

**USA**

Tel: 831.459.2991  
FAX: 831.459.5244

URL1: <http://deep.ucolick.org/>

URL2: <http://genis.ucolick.org/>

Email Submission Address: [director@ucolick.org](mailto:director@ucolick.org)

Email Inquiries: [director@ucolick.org](mailto:director@ucolick.org)

Attention: Michael Bolger, Director  
UNIVERSITY OF CALIFORNIA, SANTA CRUZ

UCO/LICK OBSERVATORY

POSTDOCTORAL SCHOLAR

The University of California Observatories/Lick Observatory invites applications for one postdoctoral scholar position, contingent upon funding availability. Appointee will be a team member of the Deep Extragalactic Evolutionary Probe (DEEP) project, aimed at studying the large-scale structure, formation, and evolution of faint galaxies and AGNs. Completed data include 40,000+ Keck spectra of faint galaxies and AGN, plus sub-surveys as part of AEGIS with HST, Spitzer, Chandra, GALEX, VLA, and other telescopes. Appointee will lead one or more projects in collaboration with Drs. Sandra Faber, Raja Guhathakurta, and David Koo, all of whom are senior members of DEEP and AEGIS. Opportunity and funding will be provided for independent research. Preference will be given to candidates with demonstrated experience with galaxy evolution and with multi-wavelength data.

RANK: Postdoctoral Scholar - Employee

SALARY: \$43,500 - \$50,628, commensurate with qualifications and experience.

MINIMUM QUALIFICATIONS: Ph.D. or equivalent in Astronomy or Physics or a closely related field, relevant refereed publications, and experience with galaxy data reductions and analysis. Must be able to work independently yet collegially in a team environment.

TERM OF APPOINTMENT: Two years, with likely extension to three, contingent upon availability of funding and positive performance evaluation.

POSITION START DATE: October 1, 2009 (negotiable).

TO APPLY: Please send a vita, two-page summary of relevant experience and plans, and three or more letters of recommendation\* to the address below.

\*All letters will be treated as confidential documents; please direct your references also UCSC's confidentiality statement at [http://www2.ucsc.edu/ahr/academic\\_policies\\_and\\_procedures/capm/confstm.htm](http://www2.ucsc.edu/ahr/academic_policies_and_procedures/capm/confstm.htm)

SUBMISSION ADDRESS: Postdoctoral Scholar Recruitment C/o UCO/Lick, Office of the Director Please refer to position #PS-DEEP in your reply University of California 1156 High Street Santa Cruz, CA 95064

CLOSING DATE: All materials must be received no later than February 2, 2009.

The University of California, Santa Cruz is an Affirmative Action/Equal Employment Opportunity Employer, committed to excellence through diversity. We strive to establish a climate that welcomes, celebrates, and promotes respect for the contributions of all students and employees.

Inquiries regarding the University's equal employment opportunity policies may be directed to: Equal Employment Opportunity/Affirmative Action Office at the University of California, Santa Cruz, CA 95064; (831) 459-2686. Under Federal law, the University of California may employ only individuals who are legally able to work in the United States as established by providing documents as specified in the Immigration Reform and Control Act of 1986.

If you need assistance due to a disability please contact the Academic Personnel Office at 499 Clark Kerr Hall (831) 459-4300. This position description is available in alternate formats, which may be requested from Academic Personnel at (831) 459-4300.

VISIT THE APO WEB SITE <http://apo.ucsc.edu> 10/10/08

**No. 25182**

**Postdoctoral Scholar in Star Formation and Galaxy Evolution**

**UNIVERSITY OF PENNSYLVANIA**

**Tel:**

**URL1:** <http://www.sas.upenn.edu/~jaguire/>

**Email Submission Address:** [inquiries@sas.upenn.edu](mailto:inquiries@sas.upenn.edu)

**Email Inquiries:** [inquiries@sas.upenn.edu](mailto:inquiries@sas.upenn.edu)

**Attention:** James Aguirre

Seeking a postdoctoral scholar to study the properties of molecular gas in dusty star-forming galaxies at all redshifts -- from LIRGs and ULIRGs in the local universe to the submillimeter galaxy population at the historical peak of star-formation activity ( $1 < z < 3$ ) -- using a new broadband, millimeter-wave, direct-detection diffraction-grating spectrometer, Z-Spec, at the Caltech Submillimeter Observatory. Z-Spec covers the complete 1 mm atmospheric window from 195-305 GHz with a resolution ~1000 km/s, at near background-limited sensitivity.

Two unique astrophysical experiments are currently underway:

- 1) Simultaneous detection of multiple CO lines to measure redshifts of a sample of submillimeter galaxies with  $z > 1$  selected purely on their (sub)millimeter properties, and use of the CO lines to probe the molecular gas properties.
- 2) Line surveys over the 195-305 GHz band of LIRGs and ULIRGs, measuring CO isotopes, density tracers, and PDR tracers in a single spectrum and constructing models to constrain mass, temperature, density, and UV illumination of the molecular gas.

The successful applicant will have a Ph.D. in physics, astrophysics, or related subjects, and will perform observations and data analysis for Z-spec on the key projects above, as well as other projects of his or her own interest using Z-spec's unique capabilities. Additional information about Z-spec can be found at <http://www.sas.upenn.edu/~jaguire/>.

Please submit your curriculum vitae with relevant work and research experience, a list of publications and a list of three references (email preferred).

The position is available immediately. Salary is commensurate with level of experience; benefits are provided.

**No. 25208**

**Postdoctoral scholar in Kuiper Belt studies**

**NORTHERN ARIZONA UNIVERSITY**

**Tel: (928) 523-5505**

**URL1:** <http://www.physics.nau.edu/> (NAU Department of Physics and Astronomy)

**URL2:** <http://hr.nau.edu/m/content/view/full/179/1556/> (NAU HR web page)

**URL3:** <http://www.nau.edu/~rdmccarthy/TAQ/index.htm> (UAO homepage)

**Email Inquiries:** [David.Trilling@nau.edu](mailto:David.Trilling@nau.edu)

**Attention:** David Trilling

The Department of Physics and Astronomy at Northern Arizona University (NAU) seeks an outstanding postdoctoral scholar to work with Professor David Trilling in studies of the Kuiper Belt. The ideal candidate will have a Ph.D. in astronomy, physics, planetary science, or related field, and be familiar with optical and/or infrared surveys of the Kuiper Belt, and may also execute independent research. NAU has full competitive access to all University of Arizona Observatories (UAO) facilities, including the 6.5-meter MMT and Magellan telescopes, the 2x8.4-meter Large Binocular Telescope, and numerous smaller telescopes. Ample research and travel funds will be available.

The appointment is expected to be two years with a third year possible. NAU offers an excellent benefit package to postdoctoral scholars. Flagstaff is a beautiful town of 60,000 people nestled at the base of the San Francisco Peaks in northern Arizona. We enjoy four seasons of outdoor activities. Physics and Astronomy is a small, friendly department with emphases on both research and teaching.

To apply, please visit the NAU HR web page at <http://hr.nau.edu/m/content/view/full/179/1556/> (also listed above), and reference job # 557928. Applicants should submit a CV, list of publications, a brief statement of research interests and experience, and the names and contact information of three recommenders. Applications will be considered beginning on January 15, 2009.

Northern Arizona University is a committed Equal Opportunity/Affirmative Action institution. Women, minorities, veterans and individuals with disabilities are encouraged to apply. NAU is responsive to the needs of dual career couples.

**No. 25212**

**Postdoctoral Position in Infrared Extragalactic Astrophysics**

**UNIVERSITY OF TOLEDO**

**2801 W. Bancroft St.**

**Toledo, OH 43606**

**USA**

**Tel: 419-490-0261**

**URL1:** <http://hr.astro.utledo.edu/~jdsmith/>

**URL2:** <http://www.physics.utledo.edu/>

**URL3:** [http://herchel.esac.esa.int/Key\\_Programmes.shtml](http://herchel.esac.esa.int/Key_Programmes.shtml)

**Email Submission Address:** [jd.smith@utoledo.edu](mailto:jd.smith@utoledo.edu)

**Email Inquiries:** [jd.smith@utoledo.edu](mailto:jd.smith@utoledo.edu)

**Attention:** JD Smith

Applications are invited for a postdoctoral research position with Prof. J.D. Smith in the field of infrared extragalactic astrophysics. The successful applicant will join the Herschel key program KINGFISH (Key Insights on Nearby Galaxies, a Far-Infrared Survey with Herschel; PI Rob Kennicutt). KINGFISH will explore a diverse range of scientific topics centered around the connection between star formation and the interstellar medium in nearby galaxies, building directly on the successful SINGS Spitzer Legacy project.

The position will participate in all phases of the project: data pipeline development, analysis, modeling, and publication of results in collaboration with a strong international team. This position emphasizes PACS mapping spectroscopy of principle cooling lines, which comprises over 70% of the Herschel allocation. The associate will also be encouraged to collaborate on existing extragalactic Spitzer spectroscopy programs.

The appointment is for one year initially, but is expected to extend to three. Herschel will launch early 2009. The Toledo astronomy program has 10 faculty members, 3 postdocs/research faculty, and 19 graduate students. Active research programs include cluster studies, hot stars, circumstellar disks, planet formation, astrophysical dust, star formation -- including another Herschel key program being lead in Toledo -- and extragalactic astronomy.

Candidates must hold or anticipate a Ph.D. or equivalent in physics or astronomy. Related research and extragalactic observing experience will be emphasized. To apply, please send a vita, bibliography, statement of research, and arrange to have three letters of reference sent via email to [jd.smith@utoledo.edu](mailto:jd.smith@utoledo.edu), by Jan. 15, 2009.

**No. 25215**

**Thermonuclear Supernovae and Dark Energy**

**ARIZONA STATE UNIVERSITY**

**School of Earth and Space Exploration**

**PO Box 871404**

**Tempe, AZ 85287-1404**

**USA**

**Tel: 480-965-4274**

**FAX: 480-965-8102**

**URL1:** <http://www.asu.edu/> (ASU website)

**URL2:** <http://sees.asu.edu/> (SESE website)

**URL3:** <http://cosmicorigins.asu.edu/> (Frank Timmes' website)

**Email Submission Address:** [ft44@mac.com](mailto:ft44@mac.com)

**Email Inquiries:** [ft44@mac.com](mailto:ft44@mac.com)

**Attention:** Frank Timmes, Professor

We seek a postdoctoral researcher to contribute to a theoretical program in Type Ia supernova aimed at understanding double degenerate mergers and using them to improve constraints on the nature of dark energy.

The successful applicant will also have opportunities to engage in independent research related to supernovae and their role in cosmology using the extensive computational facilities of the School of Earth and Space Exploration (SESE) at Arizona State University. The researcher will also have the opportunity to benefit from collaborations within a major new SESE initiative in Cosmology, and a new SESE Astrobiology Institute that will target the astrophysical evolution of life-supporting elements. This position is most suitable for an Astrophysics or Physics Ph.D. with experience in computational astrophysics. This 3 year appointment could begin as early as June 2009. Applications received by March 1, 2009 will receive full consideration.

Send a CV and the names of 3 references to [frank.timmes@asu.edu](mailto:frank.timmes@asu.edu) or via mail to Prof. Frank Timmes School of Earth and Space Exploration Arizona State University PO Box 871404 Tempe AZ 85287-1404 We are an Equal Opportunity/Affirmative Action Employer -- all qualified applicants will receive consideration without regard to race, creed, color, sex or national origin. ASU conducts pre-employment screening for all positions which includes a criminal background check, verification of work history, academic credentials, licenses, and certification.

**No. 24945**

**Astronomy Research Associate**

**UNIVERSITY OF COLORADO**

**1255 38th St.**

**Boulder, CO 80303**

**USA**

**Tel: 303-492-0376**

**FAX: 303-492-5941**

**URL1:** <http://cos.colorado.edu/> (Cosmic Origins Spectrograph CU Website)

**Email Submission Address:** [cynthia.trinning@colorado.edu](mailto:cynthia.trinning@colorado.edu)

**Email Inquiries:** [cynthia.trinning@colorado.edu](mailto:cynthia.trinning@colorado.edu)

**Attention:** Cynthia Trinning, COS Project Scientist

The University of Colorado at Boulder is the PI institution for the Cosmic Origins Spectrograph (COS). COS is a new, highly sensitive ultraviolet spectrograph that will be installed into the Hubble Space Telescope during Hubble Servicing Mission 4 in October 8, 2008. As part of its mission, COS team has guaranteed time commitments to execute a science program that studies the origin of large scale structure and the evolution of the intergalactic medium, the formation, evolution and ages of galaxies, and the origins of stellar and planetary systems. The COS team at the University of Colorado intends to make one or more post-doctoral level hires to work closely with science team members at the University of Colorado, and analyze and publish data acquired during our guaranteed time program. We are also looking for individuals interested in pursuing supporting theoretical studies of these scientific areas. The positions will begin in September, 2009, and require a Ph.D. in astronomy, physics or related field. The positions will be for a period of three years.

To apply for a position, please send a CV and a letter stating your scientific interests. Specifically address how you would contribute to the scientific goals of the project. Please arrange for two letters of recommendation to be sent directly to same address as this application. Consideration of applications will begin on January 15, 2009. Members of the COS team will be available for questions and discussion at the AAS meeting in Long Beach, however, it is not required to attend the meeting to receive full consideration for these positions.

The University of Colorado at Boulder is committed to diversity and equality in education and employment.

**No. 24951**

**Postdoctoral Research Associate**

**PURDUE UNIVERSITY**

**525 Northwestern Avenue**

**West Lafayette, IN 47907**

**USA**

**Tel: 765-494-5171**

**Email Submission Address:** [mliester@physics.purdue.edu](mailto:mliester@physics.purdue.edu)

**Email Inquiries:** [mliester@physics.purdue.edu](mailto:mliester@physics.purdue.edu)

**Attention:** Matthew Lister, Professor

Applications are invited for a postdoctoral fellowship with Professor Matthew Lister on the study of relativistic jet phenomena in active galactic nuclei (AGN). Prof. Lister is P.I. of the MOJAVE program, (<http://www.physics.purdue.edu/MOJAVE/>) which is investigating a large sample of AGN jets using the Very Long Baseline Array and Fermi gamma-ray observatory. The fellow will be responsible for analyzing and interpreting data from these facilities to explore connections between parsec-scale AGN jets and their gamma-ray emission properties. Both observers and theorists are encouraged to apply.

The postdoctoral fellowship is for one year, and can be renewed up to two more years contingent on performance and continued funding. A stipend for computational resources and travel will be provided.

Candidates must hold a Ph.D. or equivalent in physics or astronomy.

To apply, please send a vita, bibliography, a statement of proposed research describing how it relates to the MOJAVE program and Fermi mission, and three letters of recommendation sent to: Professor Matthew Lister, Physics Building, Room 312, 525 Northwestern Avenue, Purdue University, West Lafayette, Indiana 47907-2036. The position will remain open until filled, although applications received before 1 Nov 2008 will receive first consideration. Purdue University is an Equal Opportunity/Affirmative Action employer.

**No. 24972**  
**NASA Postdoctoral Fellowships**  
**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)**  
Tel:  
**URL1:** <http://nasa.orau.org/postdoc/>  
**Email Inquiries:** [nasapostdoc@orau.org](mailto:nasapostdoc@orau.org)

The NASA Postdoctoral Program (NPP) offers unique research opportunities to highly talented national and international scientists and engineers to engage in ongoing NASA research in space science, earth science, aeronautics, space operations, exploration systems, and astrobology.

- Awards:
- Approximately 50 Fellowships awarded annually
  - One-year appointments, renewable up to three years
  - Annual stipends start at \$50,000, with supplements for specific degree fields and high cost-of-living areas
  - Annual travel budget of \$8,000
  - Financial assistance for relocation
  - Financial supplement for health insurance purchased through the program
  - Apply at <http://nasa.orau.org/postdoc>

Application Deadlines:  
Three each year - March 1, July 1, and November 1

- Eligibility:
- U.S. Citizen
  - Foreign Nationals with a J-1 visa status as a research scholar, Lawful Permanent Resident (LPR) status, or Employment Authorization Document (EAD) with pending LPR status
  - Recent and senior-level Ph.D. recipients

- Locations of Fellowship Positions:
- Ames Research Center, Moffett Field, CA
  - Dryden Flight Research Center, Edwards, CA
  - Glenn Research Center, Cleveland, OH
  - Goddard Space Flight Center, Greenbelt, MD
  - Goddard Institute for Space Studies, New York, NY
  - Jet Propulsion Laboratory, Pasadena, CA
  - Johnson Space Center, Houston, TX
  - Kennedy Space Center, Kennedy Space Center, FL
  - Langley Research Center, Hampton, VA
  - Marshall Space Flight Center, Huntsville, AL
  - Stennis Space Center, Stennis Space Center, MS
  - NASA Headquarters, Washington, DC
  - Various locations associated with the NASA Astrobiology Institute.

To obtain more information and to apply for this exciting opportunity, please visit the NPP Web site at <http://nasa.orau.org/postdoc>.

**No. 24996**  
**Postdoctoral Scholar for Theoretical & Computational Studies of the Astrophysics of AGN Feedback**  
**DEPT. OF ASTRONOMY & ASTROPHYSICS, UNIVERSITY OF CALIFORNIA, SANTA CRUZ**

**University of California**  
**1156 High Street**  
**Santa Cruz, California 95064**

**USA**  
**Tel: 831 459 2844**  
**FAX: 831 459 5265**

**URL1:** <http://www.astro.ucsc.edu> (Department Webpage)

**URL2:** [http://www2.ucsc.edu/abr/policies\\_and\\_procedures/canpm/confstm.htm](http://www2.ucsc.edu/abr/policies_and_procedures/canpm/confstm.htm) (please notify referees of this UCSC confidentiality statement)

**URL3:** [http://www.astro.ucsc.edu/interstellar\\_and\\_intergalactic\\_medium\\_program](http://www.astro.ucsc.edu/interstellar_and_intergalactic_medium_program)

**Email Submission Address:** [mathews@ucolick.org](mailto:mathews@ucolick.org)

**Attention:** Postdoctoral Researcher Position

Applications are invited for a postdoctoral position in theoretical and computational astrophysics at the Department of Astronomy and Astrophysics, University of California, Santa Cruz. The successful candidate will work with Professor William Mathews and his colleagues on theoretical studies of the dynamics of hot, X-ray emitting gas and cosmic rays in galaxy groups and clusters related to energy feedback from active galactic nuclei.

Preference will be given to experienced applicants who can perform and analyze multi-dimensional, parallelized numerical hydrodynamics. Computations can be performed locally on UCSC's Pleiades supercomputer. Candidates must have a Ph.D. or equivalent in Physics, Astrophysics or Astronomy. This position will be for a minimum of one year and maximum of three years, subject to availability of funding and contingent on satisfactory progress. Salary: \$44,400 - \$50,628, commensurate with qualifications and experience. This position is eligible for full benefits.

To apply, please send curriculum vitae with publication list, a two-page summary of relevant experience, and the names (plus postal and email addresses) of at least three professional referees who have been asked to submit letters of recommendation to arrive by December 1, 2008 for earliest consideration, although this position will remain open until filled. All letters received will be treated as confidential documents; please refer your referees to UCSC's confidentiality statement URL. Electronic submissions are preferred. Please refer to position #TCS-AGN in all correspondence.

Starting date: February 1, 2009, but can be negotiated to accommodate individual needs.  
The University of California is an Affirmative Action/Equal Opportunity Employer.

**No. 25383**  
**11 PhD Positions to research 'Rocky Planets Around Cool Stars' - RoPACS FP7 Initial Training Network**  
**UNIVERSITY OF HERTFORDSHIRE**

**College Lane**  
**Hatfield, Hertfordshire AL10 9AB**

**U.K.**  
**Tel: +44 (0)1707 284171**  
**FAX: +44 (0)1707 284185**

**URL1:** <http://star-www.herts.ac.uk/RoPACS> (Network homepage)

**URL2:** <http://star-www.herts.ac.uk/RoPACS/Advert.html> (List of PhD positions and full application instructions)

**Email Submission Address:** [d.j.pinfield@herts.ac.uk](mailto:d.j.pinfield@herts.ac.uk)

**Email Inquiries:** [d.j.pinfield@herts.ac.uk](mailto:d.j.pinfield@herts.ac.uk)

**Attention:** David Pinfield, Dr

We are seeking to appoint 11 PhD students as Early Stage Researchers on the EU FP7 Marie Curie Initial Training Network "Rocky Planets Around Cool Stars" (RoPACS). These positions are for 3 years and will be filled in 2 phases: flexibility in the start dates, with the phase-1 PhD projects preferably starting before May 2009, and phase-2 PhD projects starting no later than the end of November 2009. The network PhD students will be trained through a combination of local and network wide research/training experience, but will be employed at one of the following network institutions:

\* University of Hertfordshire (UH), UK \* Institute of Astronomy (IoA), Cambridge, UK \* Instituto de Astrofísica de Canarias (IAC), Spain \* Max-Planck Institute fuer extraterrestrische Physik (MPE), Munich, Germany \*

\* National University of Science and Technology (NUST), Islamabad, Pakistan \* Main Astronomical Observatory (MAO), Kiev, Ukraine  
PhD students will do research on the search for and study of extra-solar planets around cool stars. By hunting around these relatively small lower-mass stars, planet-hunting techniques become more sensitive to smaller lower-mass planets that could be rocky Earth-like worlds. The network will analyse new transit survey data, build on existing follow-up techniques to characterise cool star planets with the Doppler wobble (radial velocity) method and further exploration of exoplanets (LAE-CAB, formerly LAEPF). Additionally, RoPACS will also investigate future space-based technology for studying extra-solar planets, in collaboration with its industrial partner Astrium. For more information on the PhD projects available and the host institutions, as well as full application instructions, please see <http://star-www.herts.ac.uk/RoPACS/>.

Researchers will be paid a generous salary to cover living allowance, mobility and travel. Funds will also be available for the researchers to participate in the European-wide training and research events of the Network.

Applicants can originate from anywhere in the world, except the country of their chosen host institute, and cannot have resided in the host country for more than 12 months in the previous three years.

Requirements for doctoral study vary with country. In general, applicants must have achieved (or be expecting to achieve) a Masters degree in astrophysics or a related subject. The required level of Masters exam/thesis study may be assessed as an eligibility criterion for German and Spanish positions. For UK positions, applications may also be made with a first degree equivalent to BSc (first or upper second class) or MPhys.

Review of applications by the Network will continue until the positions are filled, with priority given to applications received before 28 February and 31 August for phase-1 and phase-2 PhD projects respectively. For further information, contact David Pinfield (D.J.Pinfield@herts.ac.uk).

PhD positions are through employment contracts and include full social benefits according to the regulations of the host country. A contribution to some family related expenses and the cost of annual travel back to the home country of the PhD student are also included.

**No. 25407**  
**Master's/PHD Program and 2 PhD Positions in Astronomy**  
**TUORLA OBSERVATORY, DEPARTMENT OF PHYSICS & ASTRONOMY, UNIVERSITY OF TURKU, FINLAND**

**Tel:** <http://www.astro.utu.fi/> (Main page)

**URL2:** <http://www.astro.utu.fi/edu/HowToApply.shtml> (Detailed application instructions)

**Email Submission Address:** [cflynn@utu.fi](mailto:cflynn@utu.fi)

**Email Inquiries:** [cflynn@utu.fi](mailto:cflynn@utu.fi)

**Attention:** Dr Chris Flynn

The Department of Physics and Astronomy at the University of Turku in Finland offers an extensive program in astronomy and space physics, leading to Master's (MSc) and doctorate (PhD) degrees, with all instruction given in the English language. Students have access to world-leading facilities at the European Southern Observatory, European Space Agency, telescopes in the Canary Islands in Spain, over 20 star astrophysicists and space scientists and supercomputing facilities. The Master's program consists of two years of full-time study, while the PhD program takes typically 4 years to complete.

We are currently offering two PhD positions with funding (about EUR 20,000 per year) in the field of infrared extragalactic astronomy, to work on active galaxies and supernovae, respectively. Interested applicants are invited to contact Dr. Jari Kotilainen (active.galaxies) and/or Seppo Mattila (supernovae) (e-mail: [jari.kotilainen@utu.fi](mailto:jari.kotilainen@utu.fi), [seppo.mattila@utu.fi](mailto:seppo.mattila@utu.fi)). Applications for these positions should be sent by e-mail and should include a curriculum vitae, a copy of the academic transcript, and the names and contact information of two persons who are familiar with the applicant's work.

There are presently no tuition fees in Finland for domestic or foreign students. However, students registering in the Master's program will usually need to provide their own funding for their living costs. Find out more from: <http://www.astro.utu.fi/edu/Financing.shtml>

Applications for academic year 2009 are now open, with a deadline of February 2nd, 2009. Find out more from: <http://www.astro.utu.fi/edu/Msc.shtml> <http://www.astro.utu.fi/edu/PhD.shtml>  
No benefits information has been provided by the employer.

**No. 25279 (New)**  
**10 PhD Positions in Black Hole Astrophysics**  
**EUROPEAN UNION INITIAL TRAINING NETWORK**

**Tel:** <http://www.black-hole.eu/> (Main page)

**URL2:** <http://www.black-hole.eu/index.php/available-positions> (List of available positions and detailed application instructions)

**Email Submission Address:** [edith.day@sternwarte.uni-erlangen.de](mailto:edith.day@sternwarte.uni-erlangen.de)

**Email Inquiries:** [joern.wilms@sternwarte.uni-erlangen.de](mailto:joern.wilms@sternwarte.uni-erlangen.de)

**Attention:** Ms. Edith Day

Applications are invited for 10 fully funded PhD positions in a new EU FP7 Marie Curie Initial Training Network (ITN), "Black Hole Universe". Four positions will start between Jan-Mar 2009, the rest in Autumn 2009. Inaugurated on 1 October 2008, this four year Network links the University of Erlangen-Nuremberg (J. Wilms), University of Amsterdam (S. Markoff, R. Wijnands), INAF/Bress Observatory (Milan, T. Belloni), University of Cagliari (L. Burderi), Sabanci University (Istanbul, E. Kalemci), CEA Saclay (S. Corbel, J. Rodriguez), and University of Southampton (P. Uttley, I. McHardy), and several other associated nodes. PhD students will pursue a variety of multi-wavelength observational and theoretical projects researching black holes. Specifically the Network will focus on the study of black hole accretion flows and jet outflows, and the relationship between phenomena in black holes from stellar to galactic scales, as well as in neutron stars. For descriptions of the individual PhD projects and host institutions, as well as the detailed application instructions, please see <http://www.black-hole.eu>.

Each PhD position will last 3-4 years, depending on requirements of the individual host institute, and will be associated with a particular project based at a particular host institute. The student will be co-supervised by two other Network hosts, where the student will spend several months visiting. Along with the Network will also organize two international schools on multi-wavelength astronomy techniques, a workshop on black hole astrophysics, as well as a final international conference entitled "Black Holes in the Galaxy and Beyond". PhD students will also receive training in industry-related skills, career coaching, and may participate in the host institute's teaching and outreach activities.

Each position comes with a generous salary including full social benefits. All positions are designed to have some flexibility in timing, such as start date or for family needs. Females and minorities are strongly encouraged to apply. Applicants can originate from anywhere in the world, except the country of their chosen host institute, and cannot have resided in the host country for more than 12 months in the previous three years. They must have a Masters degree (or equivalent to begin PhD in their country) in Physics and/or Astronomy, and be able to speak English.

Review of applications by the Network and Supervisory Board will continue until the positions are filled, with applications received before 31 December given priority. However, for the first four positions, we encourage applications to arrive as soon as possible.

For further information, contact Joern Wilms ([joern.wilms@sternwarte.uni-erlangen.de](mailto:joern.wilms@sternwarte.uni-erlangen.de)) or Sera Markoff ([s.b.markoff@uva.nl](mailto:s.b.markoff@uva.nl)).

With exception of one position, which national law requires to be a fellowship, all positions are through employment contracts and include full social benefits per the regulations of the host country. Usually these benefits cover medical and dental insurance, parental leave, and retirement benefits. A contribution to the cost of annual travel back to the home country of the PhD student is also included.

**No. 25386**  
**Adaptive Optics (AO) Scientist**  
**W. M. KECK OBSERVATORY**  
**65-1120 Mamalahoa Hwy.**  
**Kamuela, HI 96743**

**USA**  
**Tel:** **808-881-3696**

**FAX:** **808-881-3696**

**URL1:** <http://www.keckobservatory.org>

**URL2:** <http://www.keckobservatory.org>

**Email Submission Address:** [amp@nsl.kck.hawaii.edu](mailto:amp@nsl.kck.hawaii.edu)

**Email Inquiries:** [employment@keck.hawaii.edu](mailto:employment@keck.hawaii.edu)

**Attention:** AO Scientist

The W. M. Keck Observatory operates the world's two largest optical/infrared telescopes located on the summit of Mauna Kea on the Big Island of Hawaii. Both telescopes are equipped with AO systems which are routinely used in both Natural and Laser Guide Star (LGS) AO modes. These systems have been extremely productive scientifically. New, more capable, systems are currently in design and development including an LGS AO upgrade to one telescope and a Next Generation AO (NGAO) Facility designed for even higher Strehl ratios, sensitivity and sky coverage.  
The AO Scientist will be expected to provide scientific leadership for the Observatory's AO development activities. In particular, the AO Scientist will play a lead role in the design, development, commissioning and optimization of the NGAO facility including science instruments, with an emphasis on the science operations tools and science performance. The AO Scientist will also participate in improvements to the existing AO facilities including performance optimization and characterization.

Minimum requirements for this position include: Ph.D. level degree in astronomy or equivalent experience; a demonstrated record of publishing astronomical science based on AO observations; and two years of

relevant AO experience, including performance characterization and science optimization. Desirable qualifications include: five years of AO experience; expertise in all stages of producing AO astronomical science from observation planning to publication; data analysis and high-level programming language skills; expertise in AO modeling and AO system control; expertise in relevant engineering fields; previous Observatory experience; and a proven track record in delivering facility-class systems. The following skills are required: Excellent written and oral English communication skills, ability to work independently and as part of a team, strong project and time management skills; ability to set priorities and meet deadlines with flexibility. This is a regular position with a competitive, comprehensive benefits package including relocation assistance and private school (K-12) tuition support for dependent children. Salary is dependent upon qualifications and experience. The position is opened until filled. Employment is conditional on successful completion of drug tests and background check. Mail or fax resumes, references, and salary history to: AO Scientist, WKMO, 65-1120 Mammalahua Highway, Kaneohe, HI 96743; Fax (808) 881-3696 or employment@keck.hawaii.edu. Additional information about WKMO and this position may be found on our web site at [www.keckobservatory.org](http://www.keckobservatory.org), EOE/M/F/D/A. No benefits information has been provided by the employer.

**No. 25416**

**Instrument Program Manager  
GEMINI OBSERVATORY**

**Tel:**

**URL1:** [www.gemini.edu](http://www.gemini.edu)

**Attention:** [gemini-jobs@gemini.edu](mailto:gemini-jobs@gemini.edu)

The Gemini Observatory is looking for an Instrument Program Manager to support the design, construction, testing, and commissioning of the next generation of facility instruments as well as ensure science goals for these instruments are achieved.

This is a unique opportunity to join the team operating two of the world's cutting-edge optical/infrared telescopes located in the northern and southern hemispheres. We offer competitive salary and benefits, including paid relocation, 12 holidays and 24 vacation days annually, life insurance, 401(a) and 403(b) retirement plans, tuition assistance, long term disability insurance, travel/accommodate insurance, flexible spending accounts, and medical and dental insurance.

This challenging position requires a broad range of technical, scientific, and managerial skills. In particular, we are seeking candidates with the following qualifications: \* Demonstrated leadership skills \* Excellent interpersonal and cross-cultural communication skills \* Ability to quickly acquire understanding of complex issues \* Capability to create and deliver effective presentations to governing boards \* Project management experience with highly distributed multi-million dollar programs \* Previous experience with facility-class astronomical instrumentation \* Strategic planning, budgetary planning, and financial management experience \* Advanced degree in Astronomy/Engineering/related field.

As the Instrument Program Manager will interact with instrument teams all over the world, some international travel will be necessary. The position will be based in Hilo, Hawaii; however, occasional trips to Gemini South in Chile and to the summit of Mauna Kea will be required.

Send current CV with cover letter, the names and contact information of three individuals familiar with your qualifications from whom references may be obtained and recent salary history by February 28, 2009.

Applications will be reviewed as they are received.

AA/EOE

No benefits information has been provided by the employer.

**No. 25278 (New)**

**DIRECTOR  
LOWELL OBSERVATORY**

**1400 W Mars Hill Road**

**Flagstaff, AZ 86001**

**USA**

**Tel: 928-774-3358**

**URL1:** <http://www.lowell.edu/employment> (FULL JOB DESCRIPTION)

**Attention:** SEARCH COMMITTEE

Applications are invited from individuals with outstanding research credentials, community standing, and management experience for the position of director of the Lowell Observatory. Lowell Observatory, founded 1894, is a privately managed research institution with 75 employees, including 19 Ph.D.s on the permanent staff, 2 postdocs, and 3 predoctoral fellows. Lowell is currently building the 4.2-m Discovery Channel Telescope, slated for first light in 2010 at Happy Jack, and operates four smaller research telescopes at Anderson Mesa. The Observatory is a partner in the Navy Prototype Optical Interferometer (NPOI). Lowell's headquarters occupy a forested 746-acre campus on Mars Hill overlooking downtown Flagstaff.

The director is responsible for the scientific and managerial leadership of the institution. Outstanding interpersonal and communication skills, a record of effective management accomplishment, and strong research credentials are required, as is a Ph. D. in astronomy, astrophysics, planetary science, or a closely related field. The director reports to the Trustee of the Observatory and has frequent interaction with federal funding agencies, members of the Lowell Advisory Board, individual supporters of the institution, and representatives of partner institutions including Discovery Communications, the U.S. Naval Observatory, the Naval Research Lab, Boston University, Georgia State University, Northern Arizona University, Perth Observatory, and the U.S. Forest Service.

To apply, send a letter of application outlining your relevant experience, a personal research plan, and your vision for the development of Lowell Observatory. Also send a résumé, and the names of five professional references to the address above. Applications received by February 15, 2009 will receive full consideration. Lowell Observatory is an equal opportunity employer and prohibits discrimination on the basis of race, color, national origin, religion, age, disability, political beliefs, sexual orientation, and marital and family status in all its programs and activities.

Lowell Observatory provides a full package of benefits for all full-time employees including 100% paid medical insurance. Additionally, travel and relocation costs will be paid for this position.

**No. 25346 (New)**

**Division Head,GBT Science Operations**

**NATIONAL RADIO ASTRONOMY OBSERVATORY (NRAO)**

**P O BOX 2**

**GREEN BANK, WV 24944**

**USA**

**Tel: 304-456-2011**

**URL1:** [http://www.nrao.edu/administration/personnel\\_office/careers.shtml](http://www.nrao.edu/administration/personnel_office/careers.shtml) (Careers Page)

**Email Submission Address:** [obscareers@nrao.edu](mailto:obscareers@nrao.edu)

**Attention:** Shirley Curry - G85127

The Robert C. Byrd Green Bank Telescope (GBT) is the world's largest fully steerable telescope. Working at wavelengths ranging from 100cm through 3mm, the GBT supports a diverse range of scientific research.

Additionally, the GBT has a dynamic program of research and development which keeps the telescope at the cutting edge of science and technology.

The National Radio Astronomy Observatory is looking for an energetic individual to be responsible for the smooth and effective operation of the Green Bank Telescope from a scientific perspective. The head of science operations will lead a small group of (matrixed-managed) scientists and engineers to ensure the scientific output of the GBT remains high. This work will include oversight of the telescope scheduling process and coordination with other divisions on the maintenance priorities for the telescope. The successful candidate will also provide guidance on GBT-related activities to the engineering and technical staff as needed and ensure timely response to telescope faults.

The successful applicant must have strong leadership skills and knowledge of radio and/or millimeter astronomy. The appointment will be to the scientific staff at the level of Assistant Scientist or higher, depending on the applicant's skills and experience. The successful candidate will have 25% of their time available for independent research. Support for research and travel are provided, as well as vacation accrual, health insurance, and a moving allowance.

The position is located at the NRAO at Green Bank, WV, an observatory which combines an academic setting with a rural environment. The successful candidate will join a staff of 10 PhD astronomers and more than two dozen other staff engaged in research in the fields of engineering, computing, and education. Minimum requirement of at least three years beyond PhD, and knowledge of radio and/or millimeter wavelength astronomy, as well as basic management skills.

Applications should include a description of relevant experience, a curriculum vitae including a publication list, a statement of research interests, and the names of three scientists who have agreed to provide letters of reference. All material should be submitted as a single PDF file of the form "LastNameInitial G85127.pdf" via email to: [gbscresumes@nrao.edu](mailto:gbscresumes@nrao.edu). Letters of recommendation may be submitted separately via email. Please reference "Head Science Ops, G85127" in the subject line. Applications will be accepted until the position is filled; however initial review of applications will begin on January 15, 2009. Women and minority candidates are encouraged to apply.

Medical and dental insurance, retirement benefits, vacation and sick leave accrual.

**No. 25352 (New)**

**Oxford Astrophysics Programme Manager**

**UNIVERSITY OF OXFORD**

**Denys Wilkinson Building**

**Keble Road**

**Oxford, Oxon OX1 3RH**

**UK**

**Tel: +44 (0)1865 273302**

**FAX: +44 (0)1865 273390**

**URL1:** <http://www.physics.ox.ac.uk/astro/jobs/> (Further Particulars)

**Email Submission Address:** [astro@ox.ac.uk](mailto:astro@ox.ac.uk)

**Email Inquiries:** [astro@ox.ac.uk](mailto:astro@ox.ac.uk)

**Attention:** Vanessa Ferraro-Wood, Mrs

The Department of Physics invites applications for the appointment of Oxford Astrophysics Programme Manager. Oxford Astrophysics plays a leading role in developing ground-based radio astronomy (e.g. in the Square Kilometer Array and its pathfinders) and optical and near-infrared astronomy (e.g. the European Extremely Large Telescope and its proposed instruments HARMONI and EPICs). It is also developing interests in space-based projects like the B-Polarization Satellite and the James Webb Space Telescope. The Oxford Astrophysics Programme Manager will manage a growing portfolio of experimental projects and research and reporting in next-generation facilities.

Development to the Head of the Astrophysics sub-Department or their nominee, the Programme Manager will assist the group in securing and managing the technical resources, grant and common funds needed to advance experimental and instrumentation projects. They will play a major role developing interactions with technical institutes and industry and enhancing the international position of Oxford Astrophysics. They will be expected to liaise closely with the local Project Managers of specific projects or activities, and to spend some fraction of their time managing programmes spanning consortia of UK and international research institutes and industries.

Further Particulars of the post, including application details may be obtained from <http://www.physics.ox.ac.uk/astro/jobs/>. Applications including a CV and the contact details of three referees should be sent to Mrs Vanessa Ferraro-Wood, Astrophysics, Denys Wilkinson Building, Keble Road, Oxford OX1 3RH or email [sec@astro.ox.ac.uk](mailto:sec@astro.ox.ac.uk) by 16 January 2009 and quoting reference number DB08009. The appointment start date is 1 April 2009. It is expected that the interviews will take place the week beginning the 26 January 2009.

The University is an equal opportunity employer

<http://www.physics.ox.ac.uk/astro/jobs/>

**No. 25353**

**Astronomer: Space Telescope Science Institute, sponsored by the European Space Agency**

**SPACE TELESCOPE SCIENCE INSTITUTE**

**3700 San Martin Drive**

**Baltimore, MD 21218**

**USA**

**URL1:** [www.stsci.edu/institute/employment](http://www.stsci.edu/institute/employment)

**Email Inquiries:** [nata@stsci.edu](mailto:nata@stsci.edu)

**Attention:** Human Resources - F08-0070

Astronomer positions at the Space Telescope Science Institute, sponsored by the European Space Agency The European Space Agency (ESA) provides scientific personnel to the Space Telescope Science Institute (STSCI) as part of its collaboration with NASA on the Hubble Space Telescope (HST) Project. There are currently openings for astronomers funded by the ESA HST Mission within ESA's Directorate for Science and Robotic Exploration.

As these contracts are funded by ESA, nationals from ESA member states are strongly encouraged to apply. Applicants are requested to submit an online application at <http://www.stsci.edu/institute/employment>. Find the position using the requisition number listed above, click "apply online" at the bottom of the job details page, create an account, and upload into the "Resume Upload" section: a brief cover letter; a curriculum vitae; a list of publications; and a concise (1-3 page) description of research accomplishments and relevant technical experience (pdf format preferred). Also, applicants must arrange for three confidential letters of reference to be sent directly to Human Resources Department ([careers@stsci.edu](mailto:careers@stsci.edu)). Position inquiries may be directed to [nata@stsci.edu](mailto:nata@stsci.edu).

Complete applications received by January 31, 2009 will receive full consideration. Committed to the benefits of diversity, we strongly encourage qualified women and minority candidates to apply. EOE/AA/M/F/D/V. STSCI offers an excellent benefits package, which includes, but is not limited to:

• Tuition Reimbursement • Retirement Plans • Medical/Vision/Dental Coverage • Life Insurance • Short-Term and Long-Term Disability • Flexible Spending Accounts • Vacation/Holiday/Sick Leave

**No. 25375**

**Undergraduate Observatory Astronomical Engineer**

**UC BERKELEY**

**Tel:**

**URL1:** [http://blu.berkeley.edu/nsc/hlupd90/EMPIQYVE/EMPI/s/WEBLIB\\_UITI\\_UC\\_ISCRIP11/fieldFormula\\_ISCRIP11\\_HRMS\\_TEMPLATE2cnrf=JOB\\_POSTING\\_UC](http://blu.berkeley.edu/nsc/hlupd90/EMPIQYVE/EMPI/s/WEBLIB_UITI_UC_ISCRIP11/fieldFormula_ISCRIP11_HRMS_TEMPLATE2cnrf=JOB_POSTING_UC) (Job #9426)

**URL2:** <http://astro.berkeley.edu>

**Attention:** Human Resources

We are currently seeking an Undergraduate Observatory Astronomical Engineer who will work with undergraduate and graduate students, faculty, and staff in the operation of the teaching labs and has the general responsibility of developing, designing, maintaining and improving hardware and software for the also graduate laboratory courses. The facilities under the responsibility of the engineer include:

- a 30-inch optical telescope located in Lafayette - a 4.5m radio telescope operating at 1.4 GHz also located in Lafayette - a 2-element interferometer operating at 11 GHz located at the department. All of the telescopes and supporting receivers and detectors are controlled remotely and have modern digital control systems. In addition to the telescope facilities, the undergraduate research lab also contains a Linux-based network of 30 computers which the engineer is responsible for maintaining. Additional laboratory hardware and bench experiments will also be used by the students in the laboratory courses and will need to be maintained and upgraded by the engineer.

Data analysis for the courses is conducted primarily in the IDL computer language and the engineer should have a working knowledge of IDL or similar programming languages (e.g. Matlab, Mathematica). The goal of the teaching labs is to make our laboratory courses the best possible rich and rewarding educational experience for the students and, to this extent, the engineer must also interact with students and assist with the teaching mission of the department. Additional general engineering and technical support for the department will also occasionally be required. -Develop, design, maintain and improve hardware and software for the undergraduate laboratory courses

-Maintain a Linux-based network of 20 computers used by students for data reduction, which is done in IDL

-Responsible for maintenance of the Leuschner Observatory

-Demonstrated skills in collecting, analyzing, and reporting on data

-Experience working in a computing lab in an academic setting is helpful -Degree in physics, engineering, or a related field -Experience in applying self-reliance and initiative to hardware and software problems, repair and improvement

-Working knowledge of IDL or similar programming languages (e.g. Matlab, Mathematica)

-Excellent computer skills, including experience with Linux operating system, computer control of electronic equipment, and computer data acquisition

-Ability to develop collaborative working relationships with a diverse staff population in an academic setting

-Demonstrated skills in collecting, analyzing, and reporting on data

No benefits information has been provided by the employer.

**No. 25409**  
**Staff position in the Astronomy Group at ASTRON (Dwingeloo, the Netherlands)**  
**ASTRON**  
**Oude Hoogeveensedijk 4**  
**Dwingeloo, The Netherlands 7991 PD**  
**The Netherlands**  
**Tel: +31521595100**  
**FAX: +31521595101**  
**URL1: [www.astron.nl](http://www.astron.nl)**  
**Email Submission Address: [personeel@astron.nl](mailto:personeel@astron.nl)**  
**Email Inquiries: [morganti@astron.nl](mailto:morganti@astron.nl)**

Attention: Ms. Diana Verwey, Personnel officer  
Staff position in the Astronomy Group at ASTRON (Dwingeloo, the Netherlands)  
Deadline: March 15, 2009

The Astronomy Group at ASTRON (Dwingeloo, NL) invites applications for a staff position for research in astronomy. This position offers exciting opportunities for innovative research with the LOFAR and WSRT telescopes. ASTRON is building LOFAR, a new generation low-frequency multi-field aperture radio telescope. This will provide, starting this year, unique data in this relatively unexplored spectral window. ASTRON also operates the upgraded Westerbork Synthesis Radio Telescope (WSRT). A new generation focal plane arrays (APERture Tile in Focus - APERTIF) is being developed for the WSRT in order to significantly expand its field of view, enable the use of new types of astronomical research.

ASTRON has an international reputation for the design and construction of future radio telescopes (e.g. SKA). With international collaborations, ASTRON is active in the technology research related to SKA and SKA pathfinders. A prototype dense aperture array (EMBRACE) is also being developed and will be soon commissioned. ASTRON also hosts the Joint Institute for VLBI in Europe (JIVE). The successful candidate should have a PhD in astronomy, astrophysics or a related discipline with an excellent record in astronomical research and publications. He/she is expected to carry out innovative research in his/her own field of expertise using ASTRON telescope facilities as well as other world-class astronomical instruments. In addition, he/she is expected to be able to provide valuable input into the various astronomical and technical programmes at ASTRON and take part in defining, developing, commissioning new facilities in which ASTRON is involved. Research interest and experience in observational radio astronomy is desirable. Affinity with instrumentation or software is also valued.

The appointment is initially for two years and may then become permanent subject to positive evaluation.

Current members of the astronomy group at ASTRON are active in many frontier research areas: galaxy structure and evolution, the ISM and IGM, pulsars and compact objects, AGN evolution and studies of the magnetic universe, large radio continuum and HI surveys, deep fields, gravitational lensing. The astronomy group is heavily involved in the commissioning of LOFAR and is active in all LOFAR key science projects and the successful candidate is encouraged to be involved in exploiting this new facility. Other front-line research facilities available to Dutch astronomers include: the ESO-VLT(I), ALMA, JCMT and the ING telescopes. For more information see <http://www.astron.nl>.

The successful candidate will have access to excellent computational facilities and travel support. Collaboration is encouraged with the Radio Observatory staff and the nearby University Astronomy Departments in Amsterdam, Groningen, Leiden, Nijmegen and Utrecht.

Letters of application (including a CV, scientific interests and a research proposal), plus 3 letters of reference should be sent to [personeel@astron.nl](mailto:personeel@astron.nl) before the deadline - 15 March 2009. The successful candidate will be in the formal employ of the Netherlands Organization for Scientific Research (NWO), at a salary scale commensurate with age and experience. Generous relocation expenses, excellent package of benefits and assistance with finding accommodation will be provided. For further enquiries please contact: Dr. Raffaella Morganti ([morganti@astron.nl](mailto:morganti@astron.nl)), Head of the Astronomy Group.

No benefits information has been provided by the employer.

**No. 25415**  
**Research Scientist**  
**THE JET PROPULSION LABORATORY - CALIFORNIA INSTITUTE OF TECHNOLOGY**  
**Tel:**  
**Email Inquiries: [Mark.R.Swain@jpl.nasa.gov](mailto:Mark.R.Swain@jpl.nasa.gov)**  
**Attention: <http://CareerLaunch.jpl.nasa.gov> (Job ID #8200)**

RESEARCH SCIENTIST  
The Jet Propulsion Laboratory, California Institute of Technology, invites applications for a Research Scientist position to carry out independent research in the area of detection and characterization of exoplanets, and to contribute to advance relevant to NASA's strategic goal of exoplanet characterization.

We seek a person with expertise in the areas of modeling the emission and absorption spectra of exoplanet atmospheres. The successful candidate is expected to conduct scientific research in this and related areas, publish in scientific journals, and develop an independent research program. The candidate is encouraged to collaborate or complement the existing JPL observational exoplanet characterization programs.

JPL personnel have access to ground based telescopes (Palomar), interferometers (Keck Interferometer, CHARA), and JPL's newly-established Center for Exoplanet Science.

Candidates must have: a Ph.D. in Astrophysics, Astronomy, Physics, or a related field. Theoretical experience developing models for exoplanet atmospheres; and a record of publication demonstrating significant scientific results in these general areas. It is desired that candidates have experience with observations of exoplanets. If you have questions, please contact Mark.R.Swain@jpl.nasa.gov

Enjoy a competitive salary and impressive benefits with a renowned leader in Astrophysics Research. Please apply online at: <http://careerlaunch.jpl.nasa.gov> (Job ID #8200) Applications will be reviewed as they are received, and should include a curriculum vitae, a career statement with research objectives, and contact information for three professional references. JPL/Caltech is an equal opportunity/affirmative action employer.

No benefits information has been provided by the employer.

**No. 25424**  
**Radio Science Research Associate**  
**CORNELL UNIVERSITY**  
**507 Space Sciences Bldg**  
**Ithaca, NY 14853-6801**  
**USA**

**Tel: 607-255-0611**  
**FAX: 607-255-8803**  
**Email Submission Address: [lab5@cornell.edu](mailto:lab5@cornell.edu)**

Attention: Mr. Lynn Baker, SKA Project Manager  
Cornell University is soliciting applications for a radio science research associate for work in the development of radio astronomy technology for use on existing radio telescopes and for potential use on the Square Kilometer Array.

Assessment of calibration and processing algorithms for array telescopes and their implications for antenna designs is another key activity. The position also includes technical work for the National Astronomy and Ionosphere Center (NAIC) and work on data management and interpretation for the pulsar survey now being conducted at NAIC/Arecibo Observatory. The position requires a Ph.D. in radio astronomy and five years of experience in observations, analysis, and astrophysical interpretation. Strong preference will be given to those with a background in electronics, antenna optics and signal processing.

Necessary skills include: fluency in high-level languages and scripting languages in a unix/linux environment; using radio-frequency equipment for test measurements on antennas and receivers; organizing measurement and observation campaigns, carrying them out, and writing reports; developing and implementing data analysis pipelines appropriate for radio astronomical surveys with modern instrumentation; and conceiving and carrying out necessary follow-up measurements and observations and analysis for the above activities, including astrophysical interpretations that are reported in peer-reviewed scientific journals.

The work requires coordination with colleagues in the SKA project at a number of venues around the world and at the NAIC/Arecibo Observatory in Puerto Rico. Please send a statement of research interests and CV to: Radio Science Research Associate Position, c/o Mr. Lynn Baker, Cornell University, 507 Space Sciences Building, Ithaca, NY 14853; [lab5@cornell.edu](mailto:lab5@cornell.edu).

Application deadline: 31 Jan 2009  
No benefits information has been provided by the employer.

**No. 25235 (New)**  
**Instrument Scientist**  
**ANGLO-AUSTRALIAN OBSERVATORY**  
**167 Vimiera Road**  
**Eastwood, New South Wales 2122**  
**Australia**  
**Tel: +61 2 9372 4863**  
**FAX: +61 2 9372 4860**  
**URL1: [www.aao.gov.au/local/www/jobs](http://www.aao.gov.au/local/www/jobs)**  
**Email Submission Address: [jobs@ao.gov.au](mailto:jobs@ao.gov.au)**  
**Email Inquiries: [lab5@ao.gov.au](mailto:lab5@ao.gov.au)**

Attention: Sue-Ellen Fahey, Personnel Officer  
INSTRUMENT SCIENTIST Salary range A\$70,680.48 to A\$108,077.84 p.a. (plus superannuation contribution and leave loading)

The Anglo-Australian Observatory (AAO) seeks to appoint a new Instrument Scientist. This person will participate in the technical leadership of instrument technology development and the development of instrument concepts for future telescope facilities such as the Giant Magellan Telescope. They will also participate within ongoing instrument projects in support of the AAO's instrumentation program, which responds to the needs of the user community and the specific opportunities afforded by the AAO's facilities and other resources. A key part of the support is to ensure that the AAO maintains its world-leading reputation in this field. It is expected that time will be equally split between ongoing instrument development support and technology R&D.

The Anglo-Australian Observatory comprises the 3.9 metre Anglo-Australian Telescope (AAT) and the 1.2 metre Schmidt Telescope near Coonabarabran, NSW, and a laboratory in Epping (co-located with the headquarters of the Australia Telescope National Facility) approximately 25km from the centre of Sydney. It designs and builds astronomical instruments for its own facilities and for telescopes around the world.

The successful candidate will: • hold a PhD in astronomy, instrument science, optics, photonics, physics or related scientific discipline, • have a proven record of achievement in research related to the development of astronomical instrumentation, • have a demonstrated capacity for supporting a research and development program, and • be able to maintain a research program of international stature.

The position is available from March 2009 and report to the AAO Head of Instrument Science. The position will be a fixed term for three years subject to the satisfactory completion of a 6 month probationary period. The salary will be in the range A\$70,680.48 to A\$108,077.84 p.a. plus employer superannuation contributions. A fixed relocation allowance plus other relocation expenses (including airfare to Australia and return on completion of the appointment) will also be paid.

In order to apply, please download the employment information package from [www.aao.gov.au/local/www/jobs](http://www.aao.gov.au/local/www/jobs) and follow its guidelines. Please lodge your application electronically to [jobs@ao.gov.au](mailto:jobs@ao.gov.au) on or before the closing date which is 31st January 2009.

Applications should include: • Curriculum vitae, to include career history, education and qualifications, awards and distinctions. Give an overview of any prior experience with instrumentation development or projects.

• Full list of publications, separated into (a) accepted papers in refereed journals (b) conference proceedings and other publications. Please do not include papers or preprints with the application. • Brief outline of current research interests and any proposed research programs. • Contact details (including e-mail and phone) of three referees from whom references may be expected. It is the applicant's responsibility to arrange for references to be sent before the closing date.

Further information about the Instrument Scientist position may be addressed to Dr Roger Haynes (Phone: +61 2 9372 4863, email [rh@ao.gov.au](mailto:rh@ao.gov.au)).

Applications close at 4 pm on 31st January 2009

The Anglo-Australian Observatory is an Equal Opportunity Employer

**No. 25284 (New)**  
**Magellan Fellows**  
**ANGLO-AUSTRALIAN OBSERVATORY**  
**167 Vimiera Rd**  
**Eastwood, NSW 2122**  
**Australia**  
**Tel: +61 2 93724843**  
**FAX: +61 2 93724880**  
**URL1: <http://www.aao.gov.au/local/www/jobs> (AAO Jobs)**  
**URL2: <http://auso.aao.gov.au/> (Australian Gemini Office)**  
**URL3: <http://www.tpc.citlrc/telescopes-information/magellan> (Magellan Telescopes)**  
**Email Submission Address: [jobs@ao.gov.au](mailto:jobs@ao.gov.au)**  
**Email Inquiries: [auso@ao.gov.au](mailto:auso@ao.gov.au)**  
**Attention: Dr Stuart Ryder, Australian Gemini Scientist**

MAGELLAN FELLOWS  
The Anglo-Australian Observatory is hiring two Magellan Fellows for support duties and research associated with the Magellan telescopes. The positions are for 3 years, with a possible 6 month extension if funding permits. The first 2 to 2.5 years are spent as facilities scientists supporting the two Magellan telescopes and their instruments at Las Campanas Observatory. Fellows will reside in La Serena, Chile, but spend approximately two weeks per month working on the mountain. The final year will be spent in Australia carrying out the Fellow's own research. Any Australian institution may host the Fellow. Fellows may apply for Magellan time through the Australian share and similarly access Gemini and the AAT.

Requirements include a PhD in Astronomy or Physics, significant optical and/or near-infrared observing experience, and a strong research record. Preference will be given to candidates with direct instrumentation experience. Proficiency in optical design, controls, IRAF programming, Python, or IDL is desirable. Knowledge of Spanish is not essential.

Two Fellowships are available from 1 July 2009, with a salary of AU\$76,448 plus employer superannuation contributions, full medical benefits, relocation expenses, and a research stipend. Further information about the Fellowships, the full text of the advertisement, and the information package necessary to apply can be obtained from <http://www.aao.gov.au/local/www/jobs>.

Questions can be addressed to Dr Stuart Ryder, Australian Gemini Scientist, at +61-2-93724843, or [auso@ao.gov.au](mailto:auso@ao.gov.au). Applications by e-mail to [jobs@ao.gov.au](mailto:jobs@ao.gov.au) should be received by 16 February 2009 including a covering letter demonstrating how they meet the selection criteria; a CV and publications list; a statement of proposed research; a supporting letter from their Australian host institution; and contact details (including phone and e-mail) of three referees.

The Anglo-Australian Observatory is an equal opportunity employer.

No benefits information has been provided by the employer.

**No. 25311 (New)**  
**Observational High-Energy Astrophysicist**  
**X-RAY ASTROPHYSICS LABORATORY, NASA/GSFC**  
**Code 62**  
**NASA/GSFC**  
**Greenbelt, MD 20771**  
**USA**  
**Tel: 301-286-9662**  
**FAX: 301-286-0677**  
**URL1: <http://www.universe.nasa.gov/> (GSFC Astrophysics Science Division)**  
**Email Submission Address: [pamela.s.levell@nasa.gov](mailto:pamela.s.levell@nasa.gov)**  
**Email Inquiries: [gsstc@nasa.gov](mailto:gsstc@nasa.gov)**  
**Attention: Ms. Pamela Levell**

The X-ray Astrophysics Laboratory of NASA's Goddard Space Flight Center invites applications for one or more civil service positions for research and leadership in observational high-energy astrophysics. We specifically seek a scientist interested in high-energy astrophysics topics such as (but not limited to) accreting binaries, hot intracluster/interstellar medium, supernovae (and SNeIa), galaxy clusters/groups and AGN. This scientist will have the opportunity to play a major role in the Soft X-ray Spectrometer, a calorimeter to fly on the next major Japanese X-ray observatory Astro-E; the Gravity and Extreme Magnetism Small Explorer (GEMS), an X-ray polarimeter of unprecedented sensitivity; and the formulation of the flagship International X-ray Observatory (IXO).

Candidates at all experience levels are encouraged to apply. The appointment is initially for two years, with the expectation of permanence subject to positive evaluation and available funding. A background in observational high-energy astrophysics is desirable. GSFC offers a highly collaborative scientific environment and we seek those willing to work with teams on major scientific and technical problems.

Letters of application (including a CV & scientific interests), plus 3 letters of reference should be sent to Robert Petre via Pamela Levell at [pamela.s.levell@nasa.gov](mailto:pamela.s.levell@nasa.gov). Applications will be considered starting in January 2009 and will continue until suitable candidates have been identified. A successful candidate will be in the formal employ of the National Aeronautics and Space Administration, a branch of the U.S. Government, at a salary scale commensurate with education and experience. A diversity of candidates is sought. U. S. citizenship is required.

Standard US government civil service benefits are provided.

**No. 25318 (New)**  
**Software Engineer for James Webb Space Telescope Instrument Commanding Team**  
**COMPUTER SCIENCES CORPORATION, SPACE TELESCOPE SCIENCE INSTITUTE**  
3700 San Martin Drive  
Baltimore, MD 21218  
USA  
Tel: 410-338-5011  
FAX: 410-338-1592  
Email Submission Address: [wbaggott@csc.com](mailto:wbaggott@csc.com)  
Email Inquiries: [wbaggott@csc.com](mailto:wbaggott@csc.com)  
Attention: *Wayne Baggott, Senior Operations Manager*  
The James Webb Space Telescope (JWST) is a world-class, space-based astronomical observatory scheduled for launch in 2013. The Space Telescope Science Institute (STScI) is developing the JWST ground system for NASA, including software to control the science instruments in executing the astronomical observations. As part of this responsibility, Computer Sciences Corporation (CSC) is seeking candidates for software engineering and software systems engineering duties within the JWST science instrument commanding team.  
The successful candidate will participate in the requirements specification, design, implementation, and testing of JWST instrument commanding scripts and other ground system tools. This position requires frequent interactions with flight hardware and software engineers, instrument scientists, and ground software developers. The successful applicant will lead peer reviews for all products generated.  
CSC is looking for persons with advanced degrees in astronomy or a related scientific field, and who are U.S. citizens or have U.S. Permanent Resident status. At least four years of experience in software development are required. Desired programming languages are C/C++ and a scripting language, preferably JavaScript. Highly desirable expertise includes software control of scientific instrumentation. The ability to establish and maintain professional working relationships is essential, as are excellent analytical, problem-solving, and organizational skills.  
Interested candidates should send their resumes and cover letters to the above address. The position will be filled after January 1, 2009 upon identification of a suitable candidate. CSC is under contract to provide support to the STScI in development and operations. For information about careers at CSC, visit <http://www.csc.com>. EOE/AE.

**No. 25344 (New)**  
**Software Engineer (KPPA)**  
**NATIONAL RADIO ASTRONOMY OBSERVATORY (NRAO)**  
P O BOX 2  
GREEN BANK, WV 24944  
USA  
Tel: 304-456-2011  
URL1: [http://www.nrao.edu/administration/personnel\\_office/careers.shtml](http://www.nrao.edu/administration/personnel_office/careers.shtml) (Careers Page)  
Email Submission Address: [gbresumes@nrao.edu](mailto:gbresumes@nrao.edu)  
Email Inquiries: [ashelton@nrao.edu](mailto:ashelton@nrao.edu)  
Attention: *Shirley Curry - GB5063*  
The K-band Focal Plane Array Project at the Robert C. Byrd Green Bank Telescope (GBT) is seeking a Software Engineer to develop, monitor, and control software. The seven beam array under development will improve mapping speed and map calibration for extended molecular regions. Upon completion and commissioning of the seven beam array, work will commence on a larger array and complementary hardware infrastructure. This position is a two-year appointment with possible extension to a third year.  
The position is located at the NRAO at Green Bank, West Virginia, an observatory which combines an academic setting with a rural environment. The successful candidate will join a team of 11 software engineers and more than two dozen other professional staff members engaged in research and development in the fields of engineering, software development, and education.  
A minimum of a B.S. degree in astronomy, physics, computer science, software engineering, or related field. Advanced education or other acquired background in radio astronomy, physics, remote sensing, or spectroscopy is highly desirable. Two or more years of experience in the design and implementation of software in a structured environment is desired, with exposure to all aspects of the software development life cycle. Experience with object-oriented programming languages, especially C++ is highly desirable. The capability to successfully collaborate with peers on projects is a must, as are excellent written and verbal communication skills.  
Resumes with a cover letter specifying the available position of interest should be addressed to NRAO, Shirley Curry, P. O. Box 2, Green Bank, WV 24944 or electronically to [gbresumes@nrao.edu](mailto:gbresumes@nrao.edu). Please specify position "GB5063 Software Engineer" in subject line. Non-specific resumes/applications will not be considered. NRAO is an Equal Opportunity Employer - women and minority candidates are encouraged to apply. Medical and dental insurance, retirement benefits, vacation and sick leave accrual.

**No. 25345 (New)**  
**Software Engineer**  
**NATIONAL RADIO ASTRONOMY OBSERVATORY (NRAO)**  
P O BOX 2  
GREEN BANK, WV 24944  
USA  
Tel: 304-456-2011  
URL1: [http://www.nrao.edu/administration/personnel\\_office/careers.shtml](http://www.nrao.edu/administration/personnel_office/careers.shtml) (Careers Page)  
Email Submission Address: [gbresumes@nrao.edu](mailto:gbresumes@nrao.edu)  
Email Inquiries: [ashelton@nrao.edu](mailto:ashelton@nrao.edu)  
Attention: *Shirley Curry - GB5055*  
The Robert C. Byrd Green Bank Telescope (GBT) is the world's largest fully steerable telescope. Working at wavelengths ranging from 100cm through 3mm, the GBT supports a diverse range of scientific research. Additionally, the GBT has a dynamic program of research and development which keeps the telescope at the cutting edge of science and technology. The software development division for the GBT is an integral part of the telescope, providing the software needed before, during, and after the actual observations, such as instrument monitor and control, observation preparation, execution, and data processing and reduction, as well as the support for ongoing R&D projects. The successful applicant will be part of this exciting and diverse team, with responsibilities including continuing maintenance and enhancements of the current code base and future instrument development, e.g. the next generation of bolometer arrays for the GBT. This position will be classified as a Software Engineer II or III based on skills and experience.  
The position is located at the NRAO at Green Bank, WV, an observatory which combines an academic setting with a rural environment. The successful candidate will join a team of 11 software engineers and more than two dozen other professionals engaged in research and development in the fields of engineering, software development, and education.  
A minimum of a B.S. degree in astronomy, physics, computer science, software engineering, or related field. Advanced education or other acquired background in radio astronomy, physics, remote sensing, or spectroscopy is highly desirable. Experience in the design and implementation of software in a structured environment is preferred, with exposure to all aspects of the software development life cycle. Experience with object-oriented programming languages, especially C++ and Python is highly desirable. The capability to successfully collaborate with peers on projects is a must, as are excellent written and verbal communication skills.  
Resumes with a cover letter specifying the available position of interest should be addressed to NRAO, Shirley Curry, P. O. Box 2, Green Bank, WV 24944 or electronically to [gbresumes@nrao.edu](mailto:gbresumes@nrao.edu). Please specify position "GB5055 Software Engineer" in subject line. Non-specific resumes/applications will not be considered. NRAO is an Equal Opportunity Employer - women and minority candidates are encouraged to apply. Medical and dental insurance, retirement benefits, vacation and sick leave accrual.

**No. 25105**  
**SALT Astronomer**  
**SOUTH AFRICAN ASTRONOMICAL OBSERVATORY**  
P O Box 9  
Observatory  
Cape Town, Western Province 7935  
South Africa  
Tel: +27 21 4470025  
FAX: +27 21 4473639  
URL1: <http://www.saa.ac.za> (South African Astronomical Observatory)  
URL2: <http://www.salt.ac.za> (SALT)  
Email Submission Address: [linda@saa.ac.za](mailto:linda@saa.ac.za)  
Email Inquiries: [linda@saa.ac.za](mailto:linda@saa.ac.za)  
Attention: *Linda Tobin, HR Manager*  
The South African Astronomical Observatory (SAAO, [www.saa.ac.za](http://www.saa.ac.za)) requires an experienced astronomer dedicated to supporting the astronomical operations of the Southern African Large Telescope (SALT; [www.salt.ac.za](http://www.salt.ac.za)), a 10m optical telescope in Sutherland, some 380 km inland from the SAAO headquarters in Cape Town. SAAO – South Africa's national facility for optical/IR astronomy – operates SALT on behalf of 13 partner institutions of the SALT Foundation.  
The applicant should hold a PhD and have postdoctoral experience in observational astronomy and data reduction. In addition, instrumental and/or software expertise would be an advantage. The latter might include experience with data reductions (the SALT data pipeline is being developed in Python/PyRAF), writing web based and Java software and maintaining information pages on the web and software. SALT Astronomers are based in Cape Town, but will be expected to regularly conduct service observing (about one week in six) on SALT, which is a queue-scheduled telescope. SALT related duties consist of preparing, scheduling and carrying out of observations on behalf of the SALT users, performing on-line and pipeline data reductions, writing software and liaising with users. A generous amount of personal research time and resources, using SAAO facilities and other SAAO facilities, will also be available.  
The position will initially be for a period of three years, with the possibility of an extension. The salary package will be commensurate with qualifications and experience.  
Applicants should contact the SAAO Personnel Officer, Linda Tobin ([linda@saa.ac.za](mailto:linda@saa.ac.za)) for further particulars and details on how to apply. Applications and three letters of reference (email is acceptable) must be received no later than 31 January 2009.

**No. 25180**  
**Observatory Education Scientist**  
**WESTERN KENTUCKY UNIVERSITY**  
Tel:  
URL1: <http://asaweb.wku.edu/wkjobs> (Online application - Position number S1800)  
URL2: [astro.wku.edu](http://astro.wku.edu) (Full application instructions)  
Email Submission Address: [mike.carini@wku.edu](mailto:mike.carini@wku.edu)  
Email Inquiries: [mike.carini@wku.edu](mailto:mike.carini@wku.edu)  
Attention: *Michael Carini*  
The department of Physics and Astronomy at Western Kentucky University invites applications for the position of Observatory Education Scientist. The successful candidate will take a leading role in observatory operations for the 0.6m Bell Observatory and the 1.3m Robotically Controlled Telescope (RCT) and participate in observatory education and public outreach activities. Teaching and engaging undergraduate students in research will be strongly encouraged. Release time will be provided for research activities. Further details about the position, the department and the astronomy program can be found at <http://astro.wku.edu>. Minimum qualifications include a Masters degree in Physics or Astronomy (Ph.D. preferred), experience in ground based, astronomical observatory automation, related software, hardware, maintenance, and operation. Experience in K-16 education and outreach with remote/automated ground based observatories is required. Applications will only be accepted online. Review of applications will begin 17 February 2009 and continue until the position is filled. To begin the application process, go to position number S1800 at <http://asaweb.wku.edu/wkjobs>. Western Kentucky University is an Affirmative Action/Equal Opportunity Employer. All qualified individuals are encouraged to apply, including women, minorities, persons with disabilities, and disabled veterans.

**No. 25183**  
**Research Associate/Post-Doctoral Associate in Radio Astronomy**  
**NATIONAL ASTRONOMY & IONOSPHERE CENTER/ARECIBO OBSERVATORY**  
**Cornell University**  
504 Space Sciences Bldg  
Ithaca, NY 14853-6801  
USA  
Tel: 607-255-3735  
FAX: 607-255-8803  
URL1: [www.naic.edu](http://www.naic.edu)  
Email Submission Address: [jtm14@cornell.edu](mailto:jtm14@cornell.edu)  
Email Inquiries: [jtm14@cornell.edu](mailto:jtm14@cornell.edu)  
Attention: *Director, NAIC*  
The National Astronomy and Ionosphere Center (NAIC) has one or, possibly, two openings for a Research Associate / Post-Doctoral Associate in the radio astronomy group at the Arecibo Observatory in Puerto Rico. A "visiting" appointment would also be considered. Applicants with research interests related to HI in our galaxy or external galaxies, pulsars or VLBI observations are preferred.  
The candidate selected will have competitive access to the 305-m diameter Arecibo telescope and its suite of receivers spanning the frequency range from 300 MHz to 110 GHz, and its backend signal processors capable of analyzing bandwidths up to 800 MHz. A Mark 5A VLBI system is used for ultra-wideband interferometric observations with other large telescopes in the US and Europe. The multibeam, Arecibo L-Band Feed Array (ALFA), and the community-based legacy surveys it supports, provides a wealth of opportunities for the successful applicant to be engaged in a collaborative role with the more than 100 students and scientists who are conducting ALFA survey observations at Arecibo.  
All NAIC staff are employees of Cornell University, which manages NAIC under cooperative agreement with the National Science Foundation. Scientific staff members are expected to have broad scientific interests, and for that reason a generous travel allowance is provided to encourage staff members to participate in scientific conferences and maintain external research collaborations using other telescopes worldwide. Besides conducting an independent research program, on-site staff scientists are expected to advise visiting scientists on all aspects of their observing programs, and to help define and implement improvements to the Observatory's facilities, observing techniques and signal processing facilities.  
A PhD in astronomy or a related field is required. Research Associates are appointed for an initial three-year period, while post-doctoral appointments are initially for one year with extensions possible up to three years. All appointments at Arecibo are contingent upon the continuation of Cornell University's cooperative agreement with the National Science Foundation for the operation of NAIC. Salary and benefits are competitive, attractive and include a relocation allowance. Details will depend on the candidate's qualifications and experience. Please send a complete curriculum vita, including academic, professional and personal data, a research plan, and names and contact information of three references to: Director, NAIC, 502 Space Sciences, Cornell University, Ithaca, NY 14853-6801 (or by email to Jill Tarbell, [jtm14@cornell.edu](mailto:jtm14@cornell.edu)). Inquiries may be sent to Jill Tarbell as well. EOE/AE. Applications will be considered starting on January 20, 2009. For further information about the NAIC Arecibo Observatory see <http://www.naic.edu>.