March 2004

JOB REGISTER

American Astronomical Society

2000 Florida Ave., NW, Suite 400, Washington, DC 20009, USA
202-328-2010 * FAX 202-234-2560 * aas@aas.org

Editorial

Payment Changes

The *Job Register* no longer accepts purchase orders for payment of advertisement fees. This policy change is necessary to facilitate a change from the current Job Register submission and billing system to an online database-driven system. This change will make the submission, billing, proofing and publishing processes simpler from both an administrative perspective and for our advertisers. Should your organization have any special problems with this policy change, please contact Dr. Kevin B. Marvel, Deputy Executive Officer (marvel@aas.org). Invoicing will still be available to those institutions where credit card use is not allowed. Beginning with the May 1 Job Register, each job posting will cost $114 and credit card payments will carry a discount of $5.00. Your advertisement will not be published until payment is received by the AAS.

Job Register Change

The AAS Job Register is undergoing a significant upgrade, which we hope will be almost transparent to job seekers and advertisers, but will make the publication of the job register much easier for the AAS.

In the past, job ads were submitted online along with payment information, which was then processed by AAS staff. The new Job Register, which will become active in its initial form as of May 1, 2003, will be based on a Database system. Job ads will be submitted and stored in this database, which will greatly ease the editorial process and make ads more accessible to advertisers. Payments, either by Credit Card or Invoice, will be handled electronically. The Job Register itself will be published dynamically using Cold Fusion tools, greatly reducing the staff effort required to bring the Register to our readership.

Although this transition will appear almost seamless (we hope!), a great deal of staff effort has gone into the design, development and implementation of the new system. Happily, much of the design effort can be carried over to other areas of AAS services, such as the Small Research Grant and International Travel Grant programs.

We hope that this upgrade of our already extant publishing system will be appreciated by our readership, although the success of the transition will be judged on how little the change will be felt.

Kevin B. Marvel
Deputy Executive Officer

AAS Career Services Listing

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Publication Policy for the AAS *Job Register*

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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 and paid for by the 15th 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

There is a publication charge of $114 per job announcement, per issue.

If payment is made by credit card, a discount of $5 is applied for each month of publication.

An additional $0.25 will be charged to each word over the 250 word limit.

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
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 insitituions 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).

Previously published jobs may be re-published in the current issue with an application closing date earlier than the last day of the current month.

The decision to run an ad without 30 days response time is left to the originators.

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@aas.org. If electronic mail is not available, job announcements, with payment are also accepted by US mail, and by FAX at 202-234-2560.

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 statistics 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 address@aas.org.

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Jobs from Previous Months

(Note: Some jobs reposted from prior months may have closing dates during the current month. Readers shoud pay careful attention to the posted closing dates.)

No. 20434
Radio Astronomer
NAVAL RESEARCH LABORATORY
2001 Wisconsin Ave., NW
GR 322A
Washington, DC 20007
USA
Tel: 202-334-2760
FAX: 202-334-2759
URL1: http://rsd-www.nrl.navy.mil/7213/weiler/
Email Inquiries: Namir.Kassim@nrl.navy.mil, rap@nas.edu

Attention: Research Associateship Programs

Postdoctoral Positions in Radio Astronomy

NAVAL RESEARCH LABORATORY Remote Sensing Division, Code 7213 4555 Overlook Ave. SW Washington, DC 20375-5351 Tel. 202-767-0668 FAX: 202-404-8894
mailto:Namir.Kassim@nrl.navy.mil Attention: Dr. Namir Kassim

The Remote Sensing Division of the Naval Research Laboratory (NRL) 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) Radio astronomy hardware development, such as antenna and receiver design and development, digital signal processing, or radio frequency interference (RFI) mitigation techniques; or (2) Any area of astrophysics where existing or planned low-frequency radio observations (e.g., with VLA, VLBA, Arecibo, GMRT, GBT) 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).

NRL radio astronomers carry out a wide range of observational programs at the VLA, VLBA, and Arecibo Observatory, with a primary focus on the 74 and 330 MHz VLA and 330 MHz VLBA systems. The NRL-NRAO 74 MHz VLA system, with its 35 km baselines, is the highest angular resolution, highest sensitivity, low-frequency radio interferometer in operation today. With it, NRL scientists are beginning a sky survey of the northern hemisphere, the VLA Low-Frequency Sky Survey (VLSS). Inspired by the capabilities of the 74 MHz system, NRL radio astronomers, together with scientists at an international consortium consisting of the Netherlands Foundation for Research in Astronomy (ASTRON) and Massachusetts Institute of Technology (MIT) are planning to build the Low Frequency Array (LOFAR). NRL radio astronomers are involved in designing and developing two prototype LOFAR "stations" or phased banks of dipoles to be deployed in the 2004--2005 time frame. Observational programs, such as a 74 MHz sky survey or ongoing 74 and 330 MHz Galactic center observations, are pursued both for their intrinsic astronomical interest as well as to help guide LOFAR calibration and imaging strategy and array configuration design. LOFAR will open a new window on the spectrum, with scientific applications in virtually all areas of astrophysics.

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, with a third year extension if warranted. 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. Each year, deadlines for submission to the NRC are February 1, May 1, and August 1. The current award stipend is $55,120 per year. US citizenship or permanent residency is required. Application materials can be obtained online at www.national-academies.org/rap. For further information contact Dr. Namir Kassim at the above address; see also the NRL SNe/SNR/LFRA site: http://rsd-www.nrl.navy.mil/7213/weiler/ .

No. 20580
Scientist - Extrasolar Planetary Research
NASA'S GODDARD SPACE FLIGHT CENTER
Tel:
Email Inquiries: Stephen.P.Maran@nasa.gov

Attention: William Oegerle

The Laboratory for Astronomy and Solar Physics (LASP) at NASA's Goddard Space Flight Center plans to hire one or more civil servant scientists in the field of extrasolar planetary research. GSFC is now partnering with the Jet Propulsion Laboratory to investigate technologies and concepts for the Terrestrial Planet Finder (TPF) space observatory to be launched in the next decade. Several Discovery-class extrasolar planet missions are under development by scientists in LASP, including the Fourier Kelvin Stellar Interferometer (FKSI; Danchi, PI) and the Extrasolar Planet Imaging Coronagraph (EPIC; Clampin, PI). In addition, several staff members are working on innovative optical designs for high-contrast imaging. We are seeking applicants at the junior or senior level, with relevant experience in theory, data analysis, optics and/or space instrumentation. The successful applicant(s) should be engaged in a vigorous program of astronomical research, and will be expected to lead or make significant contributions to future space missions or instruments to study extrasolar planets. LASP has an exciting research environment, with significant roles in HST, WMAP, JWST, TPF and in future Einstein Probe missions. Negotiable start-up packages are available. For application instructions, please see website http://www.nasajobs.nasa.gov/ and "search jobs" for vacancy announcement number GS04B0061

beginning January 1, 2004. Address technical inquiries to Dr. Stephen Maran, Search Chair (Stephen.P.Maran@nasa.gov). The application deadline is March 31, 2004. NASA is an AA/EEO employer.

No. 20569
POSTDOCTORAL RESEARCH ASSOCIATE IN THEORETICAL GAMMA-RAY ASTROPHYSICS
NAVAL RESEARCH LABORATORY
2001 WISCONSIN AVENUE, NW
WASHINGTON, DC 20007
US
Tel: 202-334-2760
Email Inquiries: DERMER@GAMMA.NRL.NAVY.MIL

Attention: RESEARCH ASSOCIATES PROGRAMS

The High Energy Space Environment Branch (http://heseweb.nrl.navy.mil/) of the Naval Research Laboratory invites applications for a postdoctoral position in theoretical astrophysics. The research will focus on the scientific results anticipated from the Gamma-ray Large Area Space Telescope, which includes studies of gamma-ray bursts, blazars, pulsars, cosmic rays, and the unidentified EGRET gamma-ray sources. About one-half of the effort will be devoted to the development of theoretical models of high-energy sources. Associated with this effort will be a program of software development for testing theoretical models with GLAST data. The position would be administered by the National Research Council and would have a salary of $55,000 per year. The program is open to US citizens and permanent residents at the time of the appointment who have received their PhDs within the past 5 years.

The application deadline for the February review is, February 1st. and for the June review is May 1st. A candidate will be required to write a short proposal outlining his or her research goals, which will be reviewed by an independent committee. For more information, contact Dr. Charles Dermer, Code 7653, Naval Research Laboratory, Washington, DC. 20375-5352. Phone (202) 767-2965, e-mail: dermer@gamma.nrl.navy.mil. NRL is an equal opportunity employer.

No. 20574
Postdoctoral position(s) in theoretical astrophysics
LAVAL UNIVERSITY
Department of Physics, Physics
Engineering, and Optics
Saint-Foy (Quebec City), Quebec G1K 7P4
Canada
Tel: 418-656-2652
FAX: 418-656-2040
URL1: http://galileo.as.utexas.edu/hugo_c.html
(Dr. Martel's web page)
Email Submission Address: hugo@astro.as.utexas.edu
Email Inquiries: hugo@astro.as.utexas.edu

Attention: Hugo Martel, Professor

Applications are invited for one or possibly several postdoctoral positions in theoretical astrophysics, starting September 2004. Appointments will be for three years. The goal is to develop a strong research group in theoretical and computational astrophysics at Laval, under the direction of Prof. Hugo Martel (CRC Chairholder, Theoretical and Numerical Cosmology).

We are particularly interested in candidates with expertise in either cosmology, galaxy formation, or star formation, and previous experience with high-performance numerical simulations. HOWEVER, candidates with expertise in analytical or semi-analytical modelling will be considered, and candidates with expertise in related fields (galaxy evolution, structure and dynamics, or evolution of the ISM) will also be considered. Prof. Martel's current research interests include the evolution of X-ray clusters, the reionization of the universe, and the formation of massive star clusters and its feedback on the evolution of the ISM.

Candidates should send a cover letter, resume, brief summary of past accomplishments and research goals, and 3 letters of recommendation to the above address. The resume should include a list of computer systems, programming languages, and numerical algorithms that the candidate is familiar with. Review of applications will start on Feb 15, 2004, and continue until the position(s) is(are) filled.

No. 20636
Postdoctoral Research Positions in Astrophysics and e-Science
DEPARTMENT OF PHYSICS, UNIVERSITY OF DURHAM
University of Durham
South Road
UK
Tel:
Email Inquiries: c.s.frenk@durham.ac.uk

Attention: Mrs Dorothy Jenkins (Postdoc Application)

We invite applications for postdoctoral positions. We anticipate funding for research in theory and/or observations within the broad area of extragalactic astronomy and cosmology. Applicants should have research interests and experience in one or more of the following topics: galaxy formation and evolution, the high redshift universe, numerical simulations, large-scale structure, galaxy dynamics, and stellar populations.

We also expect to have a post specifically for applications of e-Science to the areas mentioned above. For this post, experience either in astronomical research or in applied computer science (or both) is required.

Durham hosts one of the largest research groups in Europe dedicated to theoretical and observational cosmology and extragalactic astronomy. Currently we have 12 permanent members of staff, 5 long-term research fellows, and about 25 postdocs and students. We have access to all UK national observing facilities, local access to the Magellan telescopes, and to extensive supercomputing resources, including a dedicated supercomputer in Durham.

For all posts, salary and research support will be at standard UK rates. The starting date is negotiable. Applications, including a curriculum vitae, publication list and a statement of research interests, should be sent to Mrs. D. Jenkins at the above address by March/31/04, quoting reference `Postdoc' and stating whether the application is intended for the post in Astronomy, e-Science or both. Applicants should

arrange for up to three letters of recommendation to arrive at the same address by this date.

Informal enquiries may be made to Professor Frenk at the Physics Department. (Tel + 44 191-334-3641, or email C.S.Frenk@Durham.ac.uk).

No. 20540
Astrophysicist in Cosmology/Dark Energy
NASA/GODDARD SPACE FLIGHT CENTER
Tel:
Email Inquiries: Stephen.P.Maran@nasa.gov

Attention: William Oegerle

The Space Sciences Directorate at NASA's Goddard Space Flight Center (GSFC) announces plans to expand its presence in the field of cosmology, with emphasis on dark energy research, by hiring up to 2-3 civil servant scientists. NASA and DoE recently announced plans for a Joint Dark Energy Mission (JDEM) to be launched in the next decade. Also, the Dark Universe Observatory (DUO; Griffiths PI) was recently selected for Phase A study as a Small Explorer. GSFC scientists play key roles in the DUO mission, and in carrying out mission concept studies with the Supernova Acceleration Probe team (Perlmutter, PI). GSFC is seeking applicants at the junior and senior level, with relevant experience in space instrumentation, theory or data analysis, at x-ray and optical/IR wavelengths. The successful applicant(s) should have a vigorous program of astronomical research, and will be expected to lead or make significant contributions to future space missions or instuments to study dark energy/matter, cosmology or the structure and evolution of the universe. GSFC has an exciting research environment, with major roles in HST, WMAP, RXTE, and planned missions Swift, Astro-E2, JWST, Con-X and LISA. GSFC also provides negotiable start-up packages. For a application instructions, please see website http://www.nasajobs.nasa.gov/ and "search jobs" for vacancy announcement number GS04B0029 beginning December 1, 2003. Address technical inquiries to Dr. Stephen Maran, Search Chair (Stephen.P.Maran@nasa.gov). The application deadline is March 31, 2004. NASA is an AA/EEO employer.

No. 20552
Postdoctoral Position in Computational Astrophysics/Code Validation
THE UNIVERSITY OF CHICAGO
5640 S. Ellis Ave., RI 468
Chicago, Illinois 60637
USA
Tel: (773) 834 2057
FAX: 773 834 3230
URL1: http://http://flash.uchicago.edu
URL2: http://flash.uchicago.edu/compphys/
Email Submission Address: eder@flash.uchicago.edu
Email Inquiries: eder@flash.uchicago.edu

Attention: Ms. Carrie Eder, Administrative Assistant

The DOE-funded ASCI/Alliances Center for Astrophysical Thermonuclear Flashes at the University of Chicago, the FLASH Center, invites applications for a postdoctoral research position in computational physics/code validation.

The Center's purpose is to develop and apply a general-purpose multi-physics adaptive mesh refinement code, FLASH. The primary applications of the FLASH code are modeling of astrophysical thermonuclear explosions and laboratory experiment for code validation. 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.

Research activities will include:

Construction of detailed physics models representing laboratory experiments. Critical assessment of experimental uncertainties, including initial conditions, material properties, and experimental diagnostics. Identification of essential physical processes, implementation and verification of corresponding computational modules within the framework of adaptive mesh refinement methods, and comparison of simulation results with experimental data using physics-motivated metrics. Providing feedback to experimentalist and actively aiding design of the next generation experiments, especially high-energy-density experiments on the National Ignition Facility (NIF). Close interaction with other members of the Center, sharing and exchanging scientific ideas with the wide scientific community through participation in meetings, workshops, and conferences. Publication of results in conference materials and scientific journals.

The successful candidate will develop mathematical and computational models required for simulations of flows with strong shocks typical of explosive astrophysical phenomena (core collapse and thermonuclear supernovae, supernova remnants). Studies will focus on classical shock-tube experiments and high-energy-density plasma laser experiments in collaboration with experimentalists from the National Laboratories and academia.

A PhD in one of the computational sciences is required. Experience in computational fluid dynamics and high performance parallel computing is essential. Knowledge of problems of code verification and validation and interest in theoretical astrophysics is highly desirable. Good communication skills and the ability to work in a team environment are also needed.

The position is for a period of two years with the possibility of renewal. The expected date of the appointment is April 1, 2004.

To apply, please submit to the above address a curriculum vitae, a list of publications, a brief description of research interests, and the names and contact information for three references. Please refer to "Position in Code Validation" when applying. Applications received prior to February 1, 2004 will receive first consideration. Applications will be accepted until the position is filled.

AA/EEO.

No. 20551
Postdoctoral Position in Computational Astrophysics/Interface Modeling
THE UNIVERSITY OF CHICAGO
5640 S. Ellis Ave., RI 468
Chicago, IL 60637
United States
Tel: Tel: 773 834 2057
FAX: FAX: 773 834 3230
URL1: http://flash.uchicago.edu
URL2: http://flash.uchicago.edu/compphys/

Email Submission Address: eder@flash.uchicago.edu
Email Inquiries: eder@flash.uchicago.edu

Attention: Ms. Carrie Eder, Administrative Assistant

The DOE-funded ASCI/Alliances Center for Astrophysical Thermonuclear Flashes at the University of Chicago, the FLASH Center, invites applications for a postdoctoral research position in computational physics/interface modeling.

The Center's purpose is to develop and apply a general-purpose multi-physics adaptive mesh refinement code, FLASH. The primary applications of the FLASH code are modeling of astrophysical thermonuclear explosions and laboratory experiments for code validation. 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.

Research activities will include:

Design, implementation, and rigorous verification of appropriate numerical algorithms for studying evolution of thin interfaces (e.g. volume-of-fluid algorithms, level set methods) within the framework of adaptive mesh refinement methods. Validation of numerical models against experiments involving complex hydrodynamic flows and combustion processes. Close interaction with other members of the Center, sharing and exchanging scientific ideas with wide scientific community through participation in meetings, workshops, and conferences. Publication of results in conference materials and scientific journals.

The successful candidate will develop physics models and numerical algorithms needed for simulations of multidimensional reactive flows characteristic for astrophysical phenomena (Type Ia supernovae, classical novae, x-ray bursts).

A PhD in one of the computational sciences is required. Strong background in computational physics and computational fluid dynamics, and experience with high performance parallel computing is essential. Interest in theoretical astrophysics and validation of scientific codes is highly desirable. Good communication skills and the ability to work in a team environment are also needed.

The position is for a period of two years with the possibility of renewal. The expected start date of the appointment is April 1, 2004.

To apply, please submit to the above address a curriculum vitae, a list of publications, a brief description of research interests, and the names and contact information for three references. Please refer to "Position in Interface Modeling" when applying. Applications received prior to February 1, 2004 will receive first consideration. Applications will be accepted until the position is filled.

AA/EEO

No. 20550
Postdoctoral Position in High-Resolution Spectroscopic Analysis at MSU
MICHIGAN STATE UNIVERSITY
3268 Biomedical Physical Sciences Building
Michigan State University

E. Lansing, MI 48824-2320
USA
Tel: 517-355-9200 ext 2416
URL1: http://www.nscl.msu.edu/ourlab/employment/index.php
Email Submission Address: beers@pa.msu.edu
Email Inquiries: beers@pa.msu.edu

Attention: Timothy Beers, Professor

Applications are now being accepted for a three-year postdoctoral position for discovery and analysis of metal-deficent stars in the Galaxy. This position is funded as part of the "Joint Institute for Nuclear Astrophysics" (JINA), a newly-established NSF Physics Frontier Center involving the University of Notre Dame, Michigan State University, and the University of Chicago. More information on JINA may be obtained at: http://www.jinaweb.org/

The successful candidate will work with JINA members at MSU to measure the abundances of light and heavy elements produced in the first generations of stars in the Milky Way, in particular, stars that are highly enhanced in neutron-capture elements arising from the s- and r- processes, based on analysis of high-resolution spectroscopic data presently being obtained with the world's largest telescopes. This information will be used to improve our understanding of the site(s) of neutron-capture element production, and the formation and evolution of the first elements in the Universe. The successful applicant willhave access to the SOAR 4.1m telescope in Chile, in which MSU is a partner, as well as to the facilities of the National Superconducting Cyclotron Laboratory at MSU, where fundamental studies of nuclear properties beyond the valley of stability are being conducted.

Interested individuals should mail a CV and arrange for three letters of reference to be sent directly to Professor Beers.

Applications received will be reviewed starting on Feb. 15, 2004

Michigan State University is an Affirmative Action/Equal Opportunity employer. Women and minorities are especially encouraged to apply.

No. 20617
Postdoctoral Associate in Observational Cosmology
YALE UNIVERSITY
260 Whitney Ave.
P.O. Box 208101
New Haven, CT 06511
USA
Tel: 203-432-3000
FAX: 203-432-5048
Email Submission Address: delong@astro.yale.edu
Email Inquiries: dokkum@astro.yale.edu

Attention: Pieter van Dokkum, Professor

Applicants are invited for a post-doctoral research position at the Yale Astronomy Department to work

in collaboration with Dr. Pieter van Dokkum on studies of a newly discovered population of red galaxies at redshifts >2. The successful applicant will focus on the analysis, interpretation, and/or modeling of ground- and space-based imaging and spectroscopic observations. Part of the time will be available for independent research.

Candidates must hold a Ph.D. in astronomy or related field by date of appointment. Technical expertise should preferably include experience with IRAF and data analysis. The appointment will be for three years.

Applicants should send a cover letter, curriculum vitae, list of publications, and a (1-2 page) description of research accomplishments and relevant technical experience, to the above address. They should also arrange for three letters of recommendation to be sent directly to the same address. Completed applications received by March 5, 2004 will receive full consideration. Yale University particularly encourages applications from women and members of underrepresented minority groups. AAE/EOE.

No. 20633
Postdoctoral Position in Observational Cosmology
CASE WESTERN RESERVE UNIVERSITY
Dept. of Physics
10900 Euclid Ave.
Cleveland, OH 44106
USA
Tel: 216 368 4257
FAX: 216 368 4671
Email Submission Address: lmr5@cwru.edu
Email Inquiries: john.ruhl@case.edu

Attention: Lori Rotar Morton

Applications are invited for a postdoctoral position in observational cosmology at Case Western Reserve University with Professor John Ruhl. We are currently working on several instruments that will measure the detailed properties of the cosmic microwave background (CMB). These include balloon-borne and ground-based efforts to measure the fine-scale anisotropy and polarization of the CMB, and to detect clusters of galaxies via the Sunyaev-Zeldovich effect. We are also working on the development of a new technology for mm-wave CMB polarimetry, and on the design and construction of an 8m diameter mm-wave telescope at the South Pole. The candidate should hold a Ph.D. in physics, astronomy, or a closely related field. Previous experience in one or more of the following areas is useful but not essential: cosmology, low-noise electronics, telescope design, cryogenics, and microwave, millimeter-wave or sub-millimeter instrumentation. Applicants should send a curriculum vitae, brief summary of research experience, bibliography, and three letters of recommendation to: Lori Rotar Morton, Dept. of Physics, Case Western Reserve University, 10900 Euclid Ave., Cleveland OH, 44106-7079. Applications will be reviewed beginning April 1, 2004 and will be considered until the position is filled. Case Western Reserve University is an affirmative action/equal opportunity employer, and encourages applications from women, minorities, veterans and disabled persons.

No. 20618
Postdoctoral Associate, Astrophysics
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
77 Massachusetts Avenue
Room 37-521

Cambridge, MA 02139-4307
USA
Tel:
Email Submission Address: mwb@space.mit.edu

Attention: Mark Bautz

Postdoctoral Associate

The MIT Center for Space Research seeks a postdoctoral associate to participate in observational X-ray astrophysics with the Astro-E2 satellite. Scheduled for launch in 2005, Astro-E2 is a Japan/US collaboration with instruments including a microcalorimeter array with spectral resolving power R ~ 1000 at 6 keV, a high-throughput, broadband CCD imager and a hard X-ray (10 < E <700 keV) detector. The MIT Center for Space Research has provided the CCD detectors for Astro-E2 and is represented on the Astro-E2 Science Working Group.

The incumbent's primary responsibility will be to participate in the analysis and interpretation of observations that exploit Astro-E2's unprecedented capabilities, especially for high-resolution X-ray spectroscopy of spatially-resolved, extragalactic objects. The successful candidate will be encouraged to collaborate with others in MIT's vibrant high-energy astrophysics research community, including members of the Chandra Advanced CCD Imaging Spectrometer (ACIS) and High-Energy Transmission Grating (HETG) teams and those affiliated with the Chandra X-ray Center at MIT.

Candidates should have strengths in one or more of the following areas: experience in X-ray astronomical data analysis, understanding of high-resolution X-ray spectroscopy, and/or knowledge of the physics of the X-ray-emitting plasmas. The position requires a Ph.D. in astronomy, physics, or a closely-related field. The successful applicant should be available before the end of 2004.

Qualified applicants should send a CV and a statement of research interests and arrange for three letters of reference to be sent to either mwb@space.mit.edu or Mark Bautz, Center for Space Research, 37-521, 77 Massachusetts Avenue, Cambridge, MA 02139-4307. Applications will be reviewed beginning 5 April 2004. Applications must be received by 16 April 2004. AAE/EOE.

No. 20645
Postdoctoral Fellowship in Observational Cosmology and AGN
DREXEL UNIVERSITY
Department of Physics
3141 Chestnut Street
Philadelphia, PA 19104
USA
Tel: 215-895-2710
FAX: 215-895-5934
URL1: http://www.physics.drexel.edu
(Department of Physics home page)
URL2: http://www.physics.drexel.edu/research/astro
(Drexel Astrophysics Group home page)
Email Submission Address: vogeley@drexel.edu
Email Inquiries: vogeley@drexel.edu

Attention: Prof. Michael S. Vogeley

The Department of Physics at Drexel University invites applications for a Postdoctoral Fellowship in Astrophysics, beginning in September 2004. The successful applicant will work with Prof. Michael Vogeley and collaborators in one or more of the following areas: studies of AGN using SDSS, SIRTF, GALEX, and ROSAT; observational cosmology with large galaxy and AGN surveys; simulations of structure formation; and statistical methods in cosmology. Prof. Vogeley is a participant in the Sloan Digital Sky Survey. The Astrophysics Group at Drexel has interests in cosmology, stellar dynamics, and high-performance computing (applicants with interest in the latter should apply for the separate postdoctoral position in computational astrophysics) and has lively interactions with the astrophysics group at U.Penn next door.

This position is for two years with possible extension to a third year. Applicants should send a CV, bibliography, statement of research interests, and arrange for three letters of recommendation to be sent by March 31 (later applications may be considered). Informal inquiries may be made by email to Prof. Vogeley (vogeley@drexel.edu).

Drexel University is an Affirmative Action/Equal Opportunity Employer.

No. 20640
Instructor of Astronomy
BOWLING GREEN STATE UNIVERSITY
104 Overman Hall
Dept. of Physics & Astronomy
Bowling Green, OH 43403
USA
Tel: 419-372-7244
FAX: 419-372-9938
URL1: http://physics.bgsu.edu
Email Inquiries: laird@tycho.bgsu.edu

Attention: John B. Laird, Chair

Applications are invited for an astronomy instructor position beginning in August 2004. This is a full-time position teaching undergraduate astronomy and possibly physics courses during the academic year, with additional teaching available during the summer if desired. The appointment is for two years, with the second year contingent on favorable performance evaluation, and may be renewed. A Ph.D. in astronomy or physics is strongly preferred, but an exceptional candidate with an M.S. will be considered. The successful candidates will be expected to contribute to the teaching mission of the Department. They will also be encouraged to be involved in research, either independently or as part of an existing Department program. Applicants should send curriculum vitae and a description of experience and teaching goals and philosophy, and should arrange to have three original letters of recommendation submitted directly on their behalf to: John B. Laird, Chair, Dept. of Physics & Astronomy, Bowling Green State University, Bowling Green, OH 43403. Completed applications should be received by March 15, but all applications will receive full and fair consideration until the position is filled. BGSU is an Affirmative Action/Equal Employment employer and encourages applications from women, minorities, veterans and individuals with disabilities.

No. 20635

Associate Professorship in Theoretical/Computational Astrophysics
UNIVERSITY OF COPENHAGEN
Tel:
URL1: http://www.ku.dk/led/stillinger.
URL2: http://ntserv.fys.ku.dk/hco/Bestyrelse/LedigeStillinger/Oversigt.htm
Email Inquiries: director@nbi.dk

Attention: Nils O. Andersen

Faculty Renewal Program, Associate Professorship in Theoretical/Computational Astrophysics

As part of its program for faculty renewal, the Niels Bohr Institute for Astronomy, Physics and Geophysics (NBIfAFG) announces the availability of an associate professorship in theoretical/computational astrophysics. The position will be open from September 1, 2004. The NBIfAFG constitutes the physics department of the University of Copenhagen with a faculty of 65. Details of the research activities of the institute may be found on the home page www.nbifafg.ku.dk

The Institute has a strong involvement in a number of areas in theoretical/computational astrophysics (see http://www.astro.ku.dk/comp-astro) and has access to major computing facilities through the Danish Center for Scientific Computing. Future efforts are expected to continue to concentrate on forefront astrophysical research based on the exploitation of these and similar international facilities. Scientists from all areas of theoretical/computational astrophysics are encouraged to apply.

Applicants will be considered for appointment without regard to race, sex, national origin, or religion.

The deadline for applications is March 16, 2004, at 12.00 a.m. Application via e-mail will not be accepted. Notice that this announcement alone cannot form the basis for an application. The full legal announcement must be followed and can be found on the institute homepage, see above, or obtained from the Personnel Office (Phone: +45 3532 2645) or at www.ku.dk/led/stillinger.

No. 20603
Research Scientist positions with GLAST Large Area Telescope Project
STANFORD UNIVERSITY
Department of Physics
Varian Bldg. Rm. 162
Stanford, CA 94305-4060
US
Tel:
URL1: http://www-glast.stanford.edu/

Attention: Ms. Lucy Zhou

Stanford University is seeking outstanding scientists for staff positions with the Gamma-ray Large Area Space Telescope (GLAST) project. GLAST is the next major high-energy observatory that will be launched by NASA in early 2007 and will carry out observations for a minimum of 5 years. Stanford University is the lead institution of an international collaboration building the Large Area Telescope (LAT), the primary instrument on GLAST. Science investigations will include studies of Galactic and extragalactic sources, of high-energy bursts, of Galactic and extragalactic diffuse emission, and of the

nature of unidentified sources. The LAT Collaboration is responsible for the production of source catalogs during various phases of the mission. The successful applicant(s) will contribute to development of science data processing and analysis tools and will join the LAT collaboration's science investigation. Specifically, the incumbent(s) will engage in active research on the gamma-ray astrophysics of the interstellar medium and development of tools for production of the LAT source catalog.

The appointment(s) will be at the Senior Research Scientist or Research Associate level, depending on experience, in the W. W. Hansen Experimental Physics Laboratory. Research experience in astrophysics and in one or more of the research areas mentioned above is extremely desirable, particularly in the gamma-ray astrophysics of the interstellar medium and gamma-ray source detection methods. A PhD in astronomy or physics is required. The application deadline is May 1, 2004. Stanford University is committed to equal opportunity through affirmative action in employment and we are especially eager to identify minority persons and women with appropriate qualifications.

No. 20604
Postdoctoral Opportunity - Astrophysics and Planetary Sciences
LAWRENCE LIVERMORE NATIONAL LABORATORY
Tel:
URL1: http://www.llnl.gov/urp/IGPP
(For more information visit)

Attention: Institute of Geophysics and Planetary Physics Department

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Postdoctoral Opportunity - Astrophysics and Planetary Sciences Lawrence Livermore National Laboratory Livermore, California

The Institute of Geophysics and Planetary Physics (IGPP) at Lawrence Livermore National Laboratory (LNLL) has several postdoctoral positions available in its Astrophysics and Planetary Sciences Center starting in the fall of 2004. Successful candidates will conduct research in one or more of the following areas:

- Laboratory studies of interplanetary dust particles collected in the stratosphere, returned samples from the STARDUST comet mission

- Theoretical and computational studies of stellar structure, and astrophysical jets

- Observations of luminous infrared galaxies, radio galaxies, and qso

- Laboratory experiments simulating the effects of high-energy particles and shocks on interstellar dust

- Wide-field, time-domain surveys and survey data mining supporting the development of the LSST

- Gamma-ray observations with the High Energy Focusing Telescope

- Detection of extrasolar planets via high-contrast adaptive optics

- Astronomical studies of circumstellar dust

Postdoctoral fellows will have access to LLNL's excellent computer facilities, advanced instrumentation and experimental facilities, and the University of California Observatories, including Keck Observatory (in collaboration with IGPP staff members or UC faculty).

The appointments are for one year, extendible to three years pending funding availability. Salary and benefits are extremely competitive (>$60,000) and some travel support will be made available. For further information, please visit http://www.llnl.gov/urp/IGPP/. Resume submission deadline April 30, 2004.

LLNL offers a challenging environment and a competitive salary/benefits package. When applying for this position, go to “Advanced Search” and enter source code: AIAH214PT in the Source Code field on the Search Job Postings web page at http://jobs.llnl.gov. LLNL is operated by the University of California for the Department of Energy. We are proud to be an equal opportunity employer with a commitment to workforce diversity.

Lawrence Livermore National Laboratory http://jobs.llnl.gov/

Applicants must visit http://jobs.llnl.gov/ to apply for position. No resumes will be accepted via email.

No. 20622
Senior Research Astronomer
AUSTRALIA TELESCOPE NATIONAL FACILITY, CSIRO
Tel:
URL1: http://www.atnf.csiro.au
URL2: http://www.csiro.au/careers
(Submission Address)
Email Inquiries: Lister.Staveley-Smith@csiro.au

Attention: Dr Lister Staveley-Smith, Head of Astrophysics

Applications are invited for a Senior Research Astronomer position in the ATNF Astrophysics group. The appointment will initially be for 5 years, with a possible indefinite extension. The commencement annual salary will be in the range A$72K to A$97K plus superannuation and other benefits. For exceptional candidates, a more senior appointment may be considered. The appointee will engage in astronomical research at the highest level, will participate in the operating of the ATNF, and will be prepared to take a leadership role in strategic areas important to the future of radio astronomy in Australia.

The ATNF is a Division of CSIRO and is Australia's premier radio astronomical facility. Its Sydney Headquarters are at the Radiophysics Laboratory, and it operates the Parkes 64m telescope, the Narrabri Compact Array and the Mopra 22m telescope near Coonabarabran. It also supports radio astronomy activities at NASA’s Tidbinbilla tracking station at Tidbinbilla, near Canberra. The division has 135 staff and an annual operating budget of A$18 million. The Compact Array has six 22m antennas on a 6km east-west baseline with a 214m north-south spur and operates in six bands between 20cm and 3mm. The 12 and 3mm bands are recent additions and offer new scientific opportunities. Instruments on the Parkes telescope include a 13-beam multibeam receiver operating in the 20cm band, primarily for Pulsar and HI surveys. A dual-frequency 10/50cm receiver with a wideband correlator have just been commissioned and a 5cm 7-beam receiver is under development. With other Australian and overseas antennas, the ATNF telescopes operate as a VLBI array which uses the broad-band S2 recording system.

There is significant strategic research in future instrumentation and the ATNF is actively participating in the Low-Frequency Array (LOFAR) and the Square Kilometre Array (SKA) projects. In addition to technological and scientific engagement, Australia is a strong candidate host country for both these instruments. The Headquarters site is shared with CSIRO Information and Communication Technologies (ICT) Centre, and with the Anglo-Australian Observatory which operates the 4m Anglo-Australian and 1.2m Schmidt optical telescopes near Coonabarabran.

For further details on the position and how to apply visit http://www.csiro.au/careers job reference AT04/1. For further information on the ATNF, visit http://www.atnf.csiro.au and on the position, please contact Dr Lister Staveley-Smith, email: Lister.Staveley-Smith@csiro.au . Closing date for applications is 31 March 2004.

No. 20600
Visitor in Computational Astrophysics
SAINT MARY'S UNIVERSITY
Saint Mary's University
960 Robie St.
Halifax, Nova Scotia B3H 3C3
Canada
Tel: 902-420-5439
FAX: 902-496-8218
URL1: http://www.ica.smu.ca
(ICA Web Site)
URL2: http://www.halifaxinfo.ca
(Halifax, Nova Scotia Web site)
Email Submission Address: bdeupree@ap.stmarys.ca
Email Inquiries: bdeupree@ap.stmarys.ca

Attention: Dr. Robert Deupree, Director

Long-term Visitor Program c/o Robert Deupree, Director The Institute for Computational Astrophysics Department of Astronomy and Physics Saint Mary's University Halifax, NS B3H 3C3 CANADA The Institute for Computational Astrophsyics (ICA) announces a program for long-term visitors who would spend a few months in Halifax working on a project in any area of computational astrophysics. Funds exist for a modest stipend (e.g., sabbatical leave top-up salary) as well as round-trip airfare to Halifax. Full-time ICA faculty include Robert Deupree (Director, stellar interiors), David Clarke (MHD), David Guenther (stellar seismology), Joseph Hahn (planetary dynamics), and Ian Short (stellar atmospheres). Two research associates and two graduate students are presently working with ICA faculty. ICA computational facilities include a recently installed 32(soon to be 48)-processor Beowulf and a ten-processor SMP . Members of the ICA seamlessly access more substantial resources located elsewhere through a 1 gigabit link. If a currently proposed regional computing capability is funded, extensive shared memory and Beowulf systems will be available by the fall of 2004 and a high quality data visualization centre at Saint Mary’s available a year later. Halifax has a population of 350,000 people and is the largest metropolitan area in Atlantic Canada. More information can be found about Halifax and the ICA at the web sites listed . Interested individuals should send their CV and a short summary of their proposed research to the Director by mail or e-mail. While applications may be submitted at any time, potential visitors for the summer of 2004 should have submitted an application by March 31, 2004.

No. 20641
Postdoctoral Research Fellowship in Active Galactic Nuclei and Related Objects

UNIVERSITY OF MARYLAND
Space Sciences Building-Astronomy Department
University of Maryland
College Park, MD 20742
U.S.A.
Tel: (301) 405 1519
FAX: (301) 314 9067
Email Submission Address: wilson@astro.umd.edu
Email Inquiries: wilson@astro.umd.edu

Attention: Andrew S. Wilson, Professor

Applications are invited for a postdoctoral position involving observational or theoretical work in the general area of active galactic nuclei (AGN) and related objects (such as cooling flows or ULIRGs). The preferred observational bands are X-rays (using Chandra and XMM), optical/infrared or radio line (VLBI work on water vapor masers). Familiarity with both the relevant physics and software analysis packages is essential. The University of Maryland has recently acquired guaranteed time on the Kitt Peak 4m (Mayall) telescope and projects involving this telescope are welcome. Willingness to work with graduate students is desirable.

The University of Maryland is close to many major institutes in the Baltimore-Washington area with astronomical departments or programs, including the Space Telescope Science Institute, Johns Hopkins University, NASA Goddard Space Flight Center, Naval Research Laboratory, and the U.S. Naval Observatory. The National Radio Astronomy Observatory and University of Virginia, in Charlottesville, VA, are about 2 hours drive away. Excellent possibilities exist for interaction with the many astronomers working in extragalactic astronomy, including the X-ray astronomy group at the nearby Goddard Space Flight Center.

This research fellowship will be for one year initially and is renewable annually for up to three more years contingent on performance and funding. Applicants must have a Ph. D. degree in astronomy or physics and should mail a curriculum vitae, a description of their research plans within the range of areas described above, and should arrange for three letters of recommendation to be sent. Applications received before March 31 2004 will be assured of full consideration. Salary is negotiable. EOE/AAE.

No. 20655
Predoctoral Fellowship
SMITHSONIAN ASTROPHYSICAL OBSERVATORY
60 Garden St.
MS 47
Cambridge, MA 02138
USA
Tel:
URL1: http://cfa-www.harvard.edu/predoc
(Predoctoral Fellowship application)
Email Submission Address: predoc@cfa.harvard.edu
Email Inquiries: predoc@cfa.harvard.edu

Attention: Secretary, Predoctoral Fellowship Committee

The Smithsonian Astrophysical Observatory announces the availability of predoctoral fellowships beginning in July 2004, designed to allow students from other institutions throughout the world to do their thesis research at SAO. A wide variety of research projects may be proposed, with about 200 SAO scientific staff available as research advisors. Applicants should contact directly Smithsonian scientists in their areas of interest to discuss possible research topics. Applicants must be ready to begin dissertation research at the time of award. Fellowships are awarded for one year at a time with possible renewal up to three years, contingent upon funding. Stipends will be $24,600 for the coming year. Applications are due by 15 April 2004. Electronic or fax submissions will not be accepted.

The CfA is an Equal Opportunity/Affirmative Action Employer where all qualified applicants receive consideration for employment without regard to race, creed, sex or national origin.

New Jobs This Month

No. 20648
Research Associate in Observational Astrophysics
IMPERIAL COLLEGE LONDON
Blackett Laboratory
Prince Consort Road
United Kingdom
Tel: 00 44 20 7594 7551/31
URL1: http://www.imperial.ac.uk/employment/index.htm
(Employment Vacancies)
Email Submission Address: p.meikle@imperial.ac.uk
Email Inquiries: p.meikle@imperial.ac.uk

Attention: WPS Meikle, Professor

Imperial College London

Astrophysics Group

Department of Physics

Research Associate in Observational Astrophysics

Applications are invited for a PPARC-funded Research Associate post at Imperial College London to study the near-infrared light curves of type Ia supernovae. The aim is to create a near-infrared photometric database of unprecedented temporal coverage and precision. This will be used to study the physics of type Ia supernova explosions and to provide a cosmological distance indicator of reliability superior to that attained at optical wavelengths. You will be responsible for planning the observations, running the observing programme, and using the resulting light curves to achieve the goals of the project. The programme is in collaboration with Liverpool John Moores University. It will make use of the infrared camera, SUPIRCAM, on the Liverpool Robotic Telescope. SUPIRCAM has been specifically designed for this project (http://telescope.livjm.ac.uk/inst/ircam.html).

A PhD and a background in astronomy are essential. Further details about the research activities of the Imperial College London and Liverpool John Moores University groups can be found, respectively, at http://astro.imperial.ac.uk/ and http://www.astro.livjm.ac.uk/ .

Salary will be in the range £21,368 to £31,142, inclusive of London Allowance, per annum, depending on experience. The post is available for two years in the first instance, from 1 October 2004, but a later starting date is negotiable.

Application forms and further details are available from Professor WPS Meikle, Tel: 44 (020) 7594 7551/31, email: p.meikle@imperial.ac.uk . Completed applications should include (1) Curriculum Vitae, (2) publication list, (3) summary of current research interests, (4) names and addresses of three referees, and sent to the above email address, or to Professor WPS Meikle, Imperial College London, Blackett Laboratory, Prince Consort Road, London SW7 2AZ, UK.

Closing date: 31 March 2004

Valuing diversity and committed to equality of opportunity

No. 20649
POSTDOCTORAL POSITION IN GALAXY EVOLUTION
INAF-ASTRONOMICAL OBSERVATORY OF PADOVA
vicolo dell'Osservatorio 5
Italy
Tel: +39 049 8293506
FAX: +39 049 8759840
URL1: http://www.pd.astro.it/competition
(address with application forms)
URL2: http://www.mpa-garching.mpg.de/~ediscs/
(ESO Distant Cluster Survey page)
Email Inquiries: poggianti@pd.astro.it

Attention: Direttore

The INAF-Astronomical Observatory in Padova (INAF-OAP) invites applications for a postdoctoral research position, open to applicants of all nationalities.

Outstanding candidates are sought who will carry out research programs in the area of galaxy evolution. We wish to recruit a scientist who has interests in at least one of the following areas: the effects of the environment on the formation and evolution of galaxies, galaxy clusters at high redshift, stellar populations and spectrophotometric modeling, simulations of galaxy clusters and galaxies. Both observers and modellers/theoreticians are invited to apply. The successful candidate will take a leading role in international collaborations aimed at investigating galaxy evolution in high redshift clusters through the analysis/interpretation of VLT deep imaging and spectroscopy, ACS/HST deep imaging and follow-up observations at other telescopes, especially in connection with the ESO Distant Cluster Survey, and will also be encouraged to pursue her or his own research programs.

Padova is located in the North of Italy, 20km from Venice, and houses at the same location two major Italian astronomical institutions: the Astronomical Observatory and the Department of Astronomy. The astronomical community in Padova consists of 60+ staff astronomers and ~70 between PhD students and PostDoc fellows, working mainly in the fields of cosmology, galaxy and stellar evolution.

The position is for two years, with a possible extension based on performance and availability of funding. The starting date is negotiable, until January 2005 at the latest. The annual salary will be 30000

euros (~38000 American dollars) for non-Italian residents and 25000 for Italian residents. Tax exemption will apply in some cases depending on nationality. Travel funds will also be available.

Applicants should fill in the two forms that can be found at http://www.pd.astro.it/competition , where further informations are given. Final deadline for applications is March 31st 2004, but candidates are invited to send their applications as soon as possible.

No. 20526
Postdoctoral Position in Computational Astrophysics
DREXEL UNIVERSITY
Department of Physics
32nd & Chestnut Streets
Philadelphia, PA 19104
U.S.A.
Tel: (215) 895-2723
FAX: (215) 895-5934
URL1: http://www.physics.drexel.edu/research/astro
(Astrophysics Group home page)
Email Submission Address: steve@physics.drexel.edu
Email Inquiries: steve@physics.drexel.edu

Attention: Steve McMillan, Professor

Drexel University departments of Physics and Computer Science invite applications for a postdoctoral position in computational astrophysics, beginning in September 2004. The successful applicant will work on the development of an integrated software suite of analysis and visualization tools for use on commodity (Beowulf-class) clusters of computers. Research efforts will center on three specific areas in astrophysics: (1) particle simulations of star clusters and galaxies, (2) fluid and particle simulations of large-scale structure in the universe, and (3) analysis and mining of the Sloan Digital Sky Survey database. The work will be carried out under the supervision of Prof. S. McMillan (Physics), in collaboration with other team members. Parts of the project may be performed at the National Center for Supercomputer Applications.

Applicants should have demonstrated experience in computational techniques relevant to at least one of the areas listed above, be familiar with Linux, have strong C++ programming skills, and ideally also have experience with scripting languages such as Python, and symbolic computing environments such as Maple or Matlab. The initial appointment will be for two years, subsequently renewable for up to two more years based on performance. Applicants should send a curriculum vitae, bibliography and statement of research interests, and arrange to have three letters of recommendation sent to Prof. S. McMillan at the above address. Applications will receive full consideration until the position is filled.

Drexel University is an Affirmative Action/Equal Opportunity Employer.

No. 20651
Associate Research Physicist in Cosmology
UNIVERSITY OF CALIFORNIA, BERKELEY
7 Gauss Way
Berkeley, CA 94720-7450
USA
Tel: 510-642-1528

FAX: 510-643-7629
URL1: http://snap.lbl.gov
Email Submission Address: judy@ssl.berkeley.edu
Email Inquiries: trish@ssl.berkeley.edu

Attention: Judith Jones, Human Resource Manager

Associate Research Physicist (2 positions) Attention: Ms. Judy Jones, Personnel Officer

Research Physicist: The Space Sciences Laboratory (SSL) at the University of California, Berkeley seeks applicants for two research scientists for the Supernova/Acceleration Probe (SNAP) Mission. This mission will be designed to observe the expansion history of the Universe and explore the nature of Dark Energy. To support this goal, SSL is seeking individuals experienced in cosmological studies.

The successful candidate will be expected to perform fundamental research in the field of observational cosmology for the SuperNova/Acceleration Probe (SNAP) Program. Specific responsibilities will be the development of the SNAP scientific strategy, integration of results from complementary methods, coordination of simulation work with models and new results, and evaluation of detector performance. The successful candidate will also participate in critical agency reviews; present at conferences; and publish original research related to cosmology. Two positions are available.

A Ph.D. in Physics, Astrophysics or Astronomy; with demonstrated experience in research relevant to observational cosmology and astrophysics; demonstrated ability to conduct independent research and organize results for publication and presentation; and the ability to analyze diverse data sets. Excellent organizational, analytical and interpersonal skills are necessary as is the ability to work effectively in a team environment and effectively interact with a broad range of colleagues. An understanding of modern computational techniques, especially in the area of simulation and data analysis and related experience in cosmology and astrophysics as evidenced by publications are also required. A complete curriculum vitae and three references should be sent to Ms. Judy Jones. Applications must be received by March 31, 2004. AAE/EOE.

No. 20650
Cosmology Research Scientist
UNIVERSITY OF CALIFORNIA, BERKELEY
7 Gauss Way
Berkeley, CA 94720-7450
USA
Tel: 510-642-1528
FAX: 510-643-7629
URL1: http://snap.lbl.gov
Email Submission Address: judy@ssl.berkeley.edu
Email Inquiries: trish@ssl.berkeley.edu

Attention: Ms. Judith Jones, Human Resource Manager

Research Physicist (2 Positions)

Research Physicist: The Space Sciences Laboratory (SSL) at the University of California, Berkeley

seeks applicants for two research scientists for the Supernova/Acceleration Probe (SNAP) Mission. This mission will be designed to observe the expansion history of the Universe. To support this goal, SSL is seeking individuals experienced in astrophysical and/or cosmological studies to provide leadership in areas related to cosmological modeling, simulation and the integration of SNAP results into the understanding of Dark Energy and Dark Matter in the universe.

Duties: Provide leadership in all aspects of the mission related to high-level mission requirements. Specific responsibilities will be the development of the SNAP mission analysis strategy, integration of results from complementary methods, coordination of simulation work with models and new results, evaluation of detector performance, critical evaluation of other results and models. The successful candidate will also participate in critical agency reviews; present at conferences; and publish original research related to cosmology.

A Ph.D. in Physics or Astrophysics; sustained record of accomplishments in theoretical, observational or phenomenological cosmology and astrophysics; demonstrated ability to conduct independent research and organize results for publication and presentation; and the ability to integrate diverse data into a coherent description of the universe. Excellent organizational, analytical and interpersonal skills are necessary as is the abilty to work effectively in a team environment and effectively interact with a broad range of colleagues. An understanding of modern computational techniques, especially in the area of simulation and data analysis and related experience in cosmology and astrophysics as evidenced by publications are also required. A complete curriculum vitae and three references should be sent to Ms. Judy Jones. Applications must be received by March 31, 2004. AAE/EOE.

No. 20646
ALMA Project Manager (North American)
NATIONAL RADIO ASTRONOMY OBSERVATORY
520 Edgemont Road
Charlottesville, Virginia 22903
USA
Tel: 434.296.0234
FAX: 434.296.0202
URL1: http://www.nrao.edu
(Home page)
Email Inquiries: resumes@nrao.edu

Attention: Robert D'Angio, Human Resources Manager

The National Radio Astronomy Observatory is soliciting applications for the position of Project Manager for the North American participation in the Atacama Large Millimeter Array (ALMA). The project with a budget which exceeds half a billion dollars is an equal partnership between Europe and North America, in cooperation with the Republic of Chile. It is funded in North America by the U.S. National Science Foundation (NSF) in cooperation with the National Research Council of Canada (NRC), and in Europe by the European Southern Observatory (ESO) and Spain. ALMA construction and operations are led on behalf of North America by the National Radio Astronomy Observatory (NRAO), which is managed by Associated Universities, Inc.(AUI), and on behalf of Europe by ESO. To ensure the project is managed as a unified endeavor, the partners established the Joint ALMA Office (JAO) which reports to ALMA Board. The Directors of the NRAO and ESO sit on the ALMA Board.

ALMA will be a millimeter-sub millimeter wave interferometer consisting of (64) 12m diameter antennas located on the Chajnantor Altiplano in the Atacama Desert of northern Chile and is to be

completed by 2012. ALMA will be equipped initially with dual-polarization receivers covering 4 atmospheric windows: 84 -119 GHz, 211 - 275 GHz, 275 - 370 GHz, and 602 - 720 GHz.

The Project Manager will be responsible for the overall management of the North American tasks in the construction of ALMA under the guidance of the Joint ALMA Office. He/she will be responsible for maintaining the integrity of the project schedule and work breakdown structure and the budget of the NA part of the ALMA Project. This position reports administratively to the NRAO Director and functionally to the ALMA Director and will be located in our Charlottesville, Virginia headquarters. Extensive international and domestic travel is required.

An established record of managing large scientific construction projects including demonstrated success with cost and schedule control and successful project delivery is required. Experience in the management of international scientific projects is highly desirable. This position requires an advanced degree in the physical sciences or engineering.

Women and minorities are encouraged to apply.

No. 20692
Postdoctoral Research Associate in Interferometry Instrumentation
NEW MEXICO INSTITUTE OF MINING AND TECHNOLOGY
801 Leroy Place
Wells Hall Box 31
Socorro, New Mexico 87801
USA
Tel: 505 835 5809
FAX: 505 835 5707
URL1: www.mro.nmt.edu
(MRO Website)
Email Submission Address: mce@kestrel.nmt.edu
Email Inquiries: mce@kestrel.nmt.edu

Attention: Michelle Creech-Eakman, MROI Project Scientist

New Mexico Tech (NMT), the University of Cambridge, the University of Puerto Rico and several other New Mexico institutions have joined efforts to build the Magdalena Ridge Observatory Interferometer (MROI). MROI, scheduled for completion in 2008, will consist of an array of 10 telescopes sited at 10,400 ft altitude and will make images of astronomical objects with unprecedented detail.

Applications are invited for a Postdoctoral Research Associate in the Dept. of Physics to work on the development and design of instrumentation for MROI. The ideal candidate will have experience both in optical/IR interferometry and instrumentation design and commissioning. The position will begin on or about September 1, 2004, but an earlier starting date may be arranged, pending final funding approval. We anticipate the position will last two years, with a possible third year renewal.

We seek a candidate who is interested in working on the design, fabrication and testing of any one (or more) of the following: acquisition systems, fast tip-tilt sensors, delay lines, optical and infrared beam combiners, and low-noise detector cameras. Experience with optical/IR instrumentation would be a significant advantage.

Applicants should provide a curriculum vitae, a brief summary of interests and research plans, and arrange for three letters of reference to be sent to the address above. Review of applications will begin April 1, 2004 and continue until the position if filled. For more details please visit our website at www.mro.nmt.edu or contact the Project Scientist above. NMT is an AA/EOE

No. 20697
Assistant Professor of Physics and Astronomy
BATES COLLEGE
2 Andrews Road, 7 Lane Hall
Lewiston, ME 04240
United States
Tel: (207) 786-6229
URL1: http://www.bates.edu
URL2: http://abacus.bates.edu/Faculty/Physics/

Attention: Academic Services

The Bates College Department of Physics and Astronomy invites applications from physicists and astrophysicists for a temporary position as Assistant Professor for the 2004-2005 academic year, with possible continuation through the 2005-2006 academic year. The successful candidate must demonstrate interest in teaching in a vigorous undergraduate program, welcome the opportunity for close interaction with students, and be able to guide research by advanced undergraduate physics majors. Outstanding applicants who have not yet earned the Ph.D. degree will be considered for appointment as Instructor, with promotion to Assistant Professor following receipt of the degree. Salary is competitive.

Review of applications begins March 15, 2004, and will continue until the position is filled. Please mail a letter of application, curriculum vitae, brief statement of teaching and research interests, copies of graduate and undergraduate transcripts and three letters of recommendation to:

Physics and Astronomy Search (#R2352) c/o Bates College Academic Services 2 Andrews Road, 7 Lane Hall Lewiston, ME 04240

Bates College values a diverse college community and seeks to assure equal opportunity through a continuing and effective Affirmative Action Program.

No. 20670
Postdoctoral and Senior Research Awards in the Space and Planetary Sciences
NATIONAL RESEARCH COUNCIL OF THE NATIONAL ACADEMIES
Tel:
URL1: http://www.national-academies.org/rap

Attention:

National Research Council Research Associateship Programs:

Postdoctoral Research Awards, Senior Research Awards, Summer Faculty Fellowships

The National Research Council of the National Academies is accepting applications for awards for

independent scientific research at the postdoctoral level and beyond for research to be conducted in residence at US Government laboratories. Awards will be offered in most areas of science and engineering, including astronomy, planetology, astrophysics, solar research, cosmology and related disciplines.

Among participating laboratories are: Air Force Research Laboratory, Naval Research Laboratory, Naval Postgraduate School, NASA Astrobiology Institute, NASA Ames Research Center, NASA Goddard Space Flight Center, NASA Johnson Space Center, NASA Marshall Space Flight Center, NASA Kennedy Space Center, NASA Glenn Research Center, NASA Jet Propulsion Laboratory, NASA Langley Research Center.

Awardees design their own research projects to be compatible with the interests of the sponsoring laboratory. Stipends for recent Ph.D. recipients range from $36,000 to $61,000 and are higher for additional experience. Awards also include support for relocation, professional travel and health insurance.

Annual application deadlines are November 1, February 1, May 1, and August 1. Detailed program information, including instructions on how to apply, can be found at: www.national-academies.org/rap

Questions should be directed to the NRC at tel: 202-334-2760 e-mail: rap@nas.edu

No. 20663
Postdoctoral Fellow in Computational Astrophysics
UNIVERSITY OF SYDNEY
Carslaw Building, (F07)
University of Sydney
Sydney, NSW 2006
Australia
Tel:
URL1: http://www.physics.usyd.edu.au/jobs.html
Email Inquiries: gfl@physics.usyd.edu.au

Attention: The Personnel Officer

Applications are invited for a Postdoctoral Fellow to work with Dr. Geraint F. Lewis, Dr. Tim Bedding and Dr. Mike Wheatland on the development of new inverse modeling techniques in gravitational lensing, stellar oscillations and/or solar flares. These studies will form part of the Australian initiative for the inclusion of theoretical astrophysics within the Virtual Observatory.

A PhD or equivalent in Astronomy is essential and applicants must show a proven ability for excellence in research. Applicants must also show evidence of the potential for future development and of the ability to work co-operatively with others. Experience in aspects of computational astrophysics is essential, and experience in high-level computer programming (including parallel processing), graphical representation of data/models and an understanding of observational procedures are desirable.

The position is full-time fixed term 12 months, subject to the completion of a satisfactory probation period for new appointees. Further offers of employment for up to two years are probable, subject to funding and need.

For further information contact:

Dr. Geraint F. Lewis Tel : +61 (0)2 9351 5184, e-mail: gfl@physics.usyd.edu.au

Dr. Tim Bedding Tel : +61 (0)2 9351 2680, e-mail: bedding@physics.usyd.edu.au

Dr. Mike Wheatland Tel : +61 (0)2 9351 5965, e-mail: wheat@physics.usyd.edu.au.

WE ARE AN EQUAL OPPORTUNITY EMPLOYER AND WE OFFER A SMOKE FREE WORKPLACE

Remuneration Package: up to $61,745 - $66,280 p.a. (which includes a base salary Level A $52,176 - $56,008 p.a., leave loading and up to 17% employer's contribution to superannuation)

Closing Date: 30/4/2004

No. 20669
Postdoctoral and Senior Research Awards in the Space and Planetary Sciences
NATIONAL RESEARCH COUNCIL OF THE NATIONAL ACADEMIES
Tel:
URL1: http://www.national-academies.org/rap

Attention:

National Research Council Research Associateship Programs:

Postdoctoral Research Awards, Senior Research Awards, Summer Faculty Fellowships,

The National Research Council of the National Academies is accepting applications for awards for independent scientific research at the postdoctoral level and beyond for research to be conducted in residence at US Government laboratories. Awards will be offered in most areas of science and engineering, including astronomy, planetology, astrophysics, solar research, cosmology and related disciplines.

Among participating laboratories are: Air Force Research Laboratory, Naval Research Laboratory, Naval Postgraduate School, NASA Astrobiology Institute, NASA Ames Research Center, NASA Goddard Space Flight Center, NASA Johnson Space Center, NASA Marshall Space Flight Center, NASA Kennedy Space Center, NASA Glenn Research Center, NASA Jet Propulsion Laboratory, NASA Langley Research Center.

Awardees design their own research projects to be compatible with the interests of the sponsoring laboratory. Stipends for recent Ph.D. recipients range from $36,000 to $61,000 and are higher for additional experience. Awards also include support for relocation, professional travel and health insurance.

Annual application deadlines are August 1, November 1, February 1 and May 1. Detailed program information, including instructions on how to apply, can be found at: www.national-academies.org/rap

Questions should be directed to the NRC at tel: 202-334-2760 e-mail: rap@nas.edu

No. 20668
Postdoctoral and Senior Research Awards in the Space and Planetary Sciences
NATIONAL RESEARCH COUNCIL OF THE NATIONAL ACADEMIES
Tel:
URL1: http://www.national-academies.org/rap

Attention:

National Research Council Research Associateship Programs:

Postdoctoral Research Awards, Senior Research Awards, Summer Faculty Fellowships

The National Research Council of the National Academies is accepting applications for awards for independent scientific research at the postdoctoral level and beyond for research to be conducted in residence at US Government laboratories. Awards will be offered in most areas of science and engineering, including astronomy, planetology, astrophysics, solar research, cosmology and related disciplines.

Among participating laboratories are: Air Force Research Laboratory, Naval Research Laboratory, Naval Postgraduate School, NASA Astrobiology Institute, NASA Ames Research Center, NASA Goddard Space Flight Center, NASA John Space Center, NASA Marshall Space Flight Center, NASA Kennedy Space Center, NASA Glenn Research Center, NASA Jet Propulsion Laboratory, NASA Langley Research Center,

Awardees design their own research projects to be compatible with the interests of the sponsoring laboratory. Stipends for recent Ph.D. recipients range from $36,000 to $61,000 and are higher for additional experience. Awards also include support for relocation, professional travel and health insurance.

Annual application deadlines are May 1, August 1, November 1, and February 1. Detailed program information, including instructions on how to apply, can be found at: www.national-academies.org/rap

Questions should be directed to the NRC at: Tel: 202-334-2760, E-mail: rap@nas.edu

No. 20664
Two Postdoctoral Research Associate Positions for Herschel and Planck Satellite Instrument Testing and Calibration
CARDIFF UNIVERSITY SCHOOL OF PHYSICS AND ASTRONOMY
30-36 Newport Road
Cardiff, UK CF24 0DE,
UK
Tel: +44(0)29-2087-4017
URL1: http://www.astro.cf.ac.uk/groups/instrumentation
(Cardiff Astronomy Instrumentation Group)
URL2: http://astro.estec.esa.nl/SA-general/Projects/Herschel/
(European Space Agency Herschel website)
URL3: http://www.rssd.esa.int/index.php?project=PLANCK
(European Space Agency Planck website)
Email Inquiries: matt.griffin@astro.cf.ac.uk

Attention: Personnel Department, Personnel Manager

Two Post-Doctoral Research Associate Posts

Herschel and Planck Satellite Instrument Testing and Calibration

Herschel and Planck are major European Space Agency (ESA) satellites, scheduled for launch in 2007. Cardiff University is the lead institute for the Herschel-SPIRE instrument and the major UK hardware institute for the Planck-HFI instrument. We invite applications for two three-year postdoctoral positions to work on testing and calibration of these instruments.

Applicants should have a PhD in Physics, Astrophysics, or a related field, preferably with two or more years experience in testing or evaluation of astronomical or remote sensing instruments, and of instrument data analysis. They should have excellent analytical, reporting and communication skills and be able to work with initiative and independence. Experience in far infrared or submillimetre instrumentation is desirable, although not essential. The posts will be based at Cardiff but will involve significant travel to the instrument test facilities at the Rutherford Appleton Laboratory, Oxfordshire (SPIRE) and the IAS, Paris (HFI). The post-holders will have the opportunity and be encouraged to participate in the group's astronomical research.

Starting salary for these posts will be between £20,311 - £24,121 pa depending on experience. Informal enquiries can be made to Professor Matt Griffin on +44-(0)29-2087-4203 or via e-mail (matt.griffin@astro.cf.ac.uk).

For further information and an application form contact our 24-hour recruitment line on +44(0)29 2087 4017 or e-mail: vacancies@cf.ac.uk quoting reference 065. Completed applications should be returned by 31 March 2004 to the Personnel Manager, Cardiff University, 30-36 Newport Road, Cardiff, CF24 0DE, UK.

No. 20665
Faculty Position in the area of Astronomy/Atmospheric Sciences.
UNIVERSITY OF PUERTO RICO, RIO PIEDRAS CAMPUS
Dept. of Physics
PO Box 23343
San Juan, Puerto Rico 00931-3343
Tel: (787)7640000 ext. 4746
Email Submission Address: lfonseca@rrpac.upr.clu.edu

Attention: Dr. Luis Fonseca, Chairman

Faculty Position in Physics Department of Physics University of Puerto Rico, Rio Piedras Campus

The Department of Physics of the University of Puerto Rico at Rio Piedras is conducting a search for one faculty position (tenure track) in the area of Astronomy/Atmospheric Sciences. The position is available as early as August 2004. The requirements are a Ph.D. and a demonstrated ability and commitment to excellence in independent research and teaching. The successful applicant will be expected to join the research teaching activities of the Department and develop his/her own research projects. The use of the National Astronomy and Ionosphere Center Arecibo Observatory research

facilities is expected to be part of the applicant's research plans. To apply send letter of interest in this position and curriculum vitae to: Luis F. Fonseca, Chairman, Department of Physics, University of Puerto Rico, PO Box 23343, San Juan PR 00931-3343, telephone (787) 7640000 ext. 4746, lfonseca@rrpac.upr.clu.edu . Applications will be collected until April 30, 2004.

No. 20666
Two postdoctoral fellowships in Astronomy and two in Computational Astrophysics
DUBLIN INSTITUTE FOR ADVANCED STUDIES, SCHOOL OF COSMIC PHYSICS
10 Burlington Road
Dublin 4, Ireland
Tel: +353-1-6140122
FAX: +353-1-6680561
URL1: http://www.dias.ie
(DIAS main site)
URL2: http://www.dunsink.dias.ie
(Dunsink Observatory)
URL3: http://www.cosmogrid.ie
(The CosmoGrid project)
Email Submission Address: registrarsoffice@admin.dias.ie
Email Inquiries: ld@cp.dias.ie

Attention: Ruth Graham, Registrar's Office

DIAS has just launched a new scheme of postdoctoral fellowships called Schroedinger fellowships (Erwin Schroedinger was a key figure in the establishment of the Dublin Institute in 1940 and the first director of the School of Theoretical Physics). Within the School of Cosmic Physics there will be two fellowships in Astronomy and one in Computational Astrophysics. A further postdoctoral position in Computational Astrophysics is available funded by the CosmoGrid project for grid-enabled e-science. Full details are posted on the relevant web sites.

For the computational positions we are seeking researchers with an interest in the general area of computational MHD, the microphysics of collisionless shocks, radiative processes in shocks, global shock structure and stability, particle acceleration and related topics. Experience in high performance computing is a requirement for these positions.

For the two Astronomical positions we are mainly seeking researchers with interests in multi-wavelength extragalactic studies although other areas relevant to the research interests of the Astronomy section will be considered.

No. 20667
Telescope Instrumentation Support Scientist/Astronomer
LARGE BINOCULAR TELESCOPE OBSERVATORY
933 N. Cherry Avenue
University of Arizona
Tucson, AZ 85721-0065
U.S.A.
Tel: 520-626-5231
FAX: 520-626-9333
URL1: http://lbto.org
(Observatory web site)

URL2: http://www.uacareertrack.com
(University of Arizona job site)
Email Submission Address: cevans@as.arizona.edu
Email Inquiries: rmw@as.arizona.edu

Attention: Carol Evans, Administrative Associate

Position Summary: The Large Binocular Telescope Observatory (LBTO) will operate the largest optical/infrared telescope in the world on the 3200 m summit of Mount Graham near Safford, Arizona. Over the next three years, three facility instruments will be commissioned and brought into routine use. These include a pair of wide-field prime focus optical imagers, a pair of multi-object double-beam optical spectrometers, and a pair of infrared imager/spectrographs capable of utilizing the facility adaptive optics system. In addition, two interferometric instruments are in active development and fabrication. The LBTO seeks two or more Instrument Support Scientists/Astronomers. Rank will be at the level of Assistant Staff Scientist, Associate Staff Scientist, or Staff Scientist. Salary is dependent upon qualifications and experience. A fraction of the incumbent's time may be designated for personal research. Instrument Support Scientists work at the LBTO headquarters on the University of Arizona campus in Tucson, AZ with scheduled shifts on the Mount Graham summit. Candidates must be capable of working effectively with visiting observers and engineers. Duties and Responsibilities: The Instrument Support Scientists will be responsible for scheduled and continuing maintenance, calibration and improvement of the facility instruments; preparation of documentation; support of visiting astronomers; quality control assessment; scientific performance monitoring; conducting observation block reviews; and coordination with instrument teams during construction and commissioning. The Instrument Support Scientists work under the direction of the LBTO Instrument Scientist and coordinate their activities with the Mountain Operations Manager, instrument specialists, and instrument groups. Minimum Qualifications: M.S. degree in astronomy or physics with at least three years of experience with astronomical instrumentation or observer support at a major research observatory. Preferred Qualifications: Ph.D. degree with at least five years of experience with astronomical instrumentation or observer support at a major research observatory. Familiarity with all aspects of modern astronomical instruments, observing techniques and data reduction are desirable. Reference U. of Arizona job # 30096

Address e-mail inquiries to Dr. R. Mark Wagner, LBTO Instrument Scientist, rmw@as.arizona.edu

No. 20658
Postdoctoral Associate in high-energy astrophysics
IOWA STATE UNIVERSITY
Iowa State University
Osborn Drive
Ames, Iowa 50011
USA
Tel: 515 294 6448
FAX: 515 294 6027
URL1: http://www.public.iastate.edu/~mkp
Email Submission Address: mkp@iastate.edu
Email Inquiries: mkp@iastate.edu

Attention: Martin Pohl, Professor

Applications are invited for a postdoctoral position to work with Professor Martin Pohl in the general

area of high-energy astrophysics. Both observers and theorists are encouraged to apply. Potential foci are developments for the VERITAS Cherenkov telescope array and the GLAST gamma-ray satellite project, and theoretical studies of cosmic-ray propagation and of relativistic collision fronts. The initial appointment will be for two years, renewable for one or more years, based on performance and continuing funding. A PhD in astronomy or physics is required. Candidates should send a curriculum vitae, bibliography, a statement of research interests, and arrange for three letters of recommendation to be sent to Professor Martin Pohl at the above address. Application deadline is 15 April 2004. Iowa State University is an affirmative action/equal opportunity employer.

No. 20696
Head, Office of Public Outreach
SPACE TELESCOPE SCIENCE INSTITUTE
3700 San Martin Drive
Baltimore, MD 21218
USA
Tel:
Email Inquiries: serrano@stsci.edu

Attention: Jennifer Serrano, Sr. Employment Administrator

Excellent opportunity to become a part of the dynamic Space Telescope Science Institute (STScI) team! STScI manages the science operations of the Hubble Space Telescope, which has brought us never-before-seen images and information about the universe, and is under contract to play a similar role for the James Webb Space Telescope (JWST). Applications are invited for the Head, Office of Public Outreach.

The successful applicant will have overall responsibility for education and public information activities for the Hubble Space Telescope and James Webb Space Telescope. They will also have responsibility for the Origins Education Forum for the NASA Office of Space Science. This position reports to the STScI Associate Director for Science.

The Head of the Office of Public Outreach must be able to provide leadership and vision to continue and grow the Institute's successful astronomy public outreach program. They must have demonstrated management skills, being expected to oversee a broad program with a staff currently numbering about 40, including astronomers, educators, and media relations and technical staff. The office has an annual budget of over $5M. They should have experience in science communication to the public and/or formal science education in grades K-12. Experience with Internet and other electronic communications media is strongly desired. Candidates must have the ability to identify and pursue new opportunities and partnerships, and organizational skills to oversee development programs of national rank. They should possess the skills and personality to interact comfortably with astronomers in the community, leaders in NASA, large aerospace firms, and potential corporate sponsors. The ideal candidate would possess an advanced degree, with a background in astronomy or another physical science. There are also opportunities for independent research.

Space Telescope Science Institute 3700 San Martin Dr. Baltimore, MD 21218 Attn: Human Resources Office

Applicants should send a curriculum vitae and names of references to the above address by April 16, 2004. Women and minorities are strongly urged to apply. EEO/M/F/D/V

No. 20684
Postdoctoral Position in Computational Astrophysics
ROCHESTER INSTITUTE OF TECHNOLOGY
Department of Physics
84 Lomb Memorial Drive
Rochester, NY 14623
Tel: 585 475 7973
FAX: 585 475 4153
URL1: http://astrophysics.rit.edu/
(RIT Astrophysics)
URL2: http://www.rit.edu/~drmsps/
(Homepage)
Email Submission Address: merritt@mail.rit.edu
Email Inquiries: merritt@mail.rit.edu

Attention: David Merritt, Professor

The Rochester Institute of Technology invites applications for a Postdoctoral Fellow in Computational Astrophysics to join David Merritt and the growing astrophysics group at RIT. The successful applicant will conduct research in the field of galaxy evolution, with a focus on the dynamics of galactic nuclei containing supermassive black holes. Demonstrable skill in one or more of the following areas is desirable: (a) distributed computing; (b) N-body algorithms, particularly direct- summation codes; (c) numerical gas dynamics; (d) use of the GRAPE special-purpose computers. The computing environment at RIT is one of the best in the world for astrophysical dynamics, including a GRAPE-6 computer; a GRAPE cluster, currently with 8 nodes, each containing a GRAPE-6Af accelerator board; and a 104-node Beowulf cluster with 1 TByte of memory. The GRAPE cluster is the first facility of its kind anywhere in the world. Interested candidates should send a CV and brief statement describing their research interests, and arrange for 2-3 letters of reference to be sent to David Merritt. Email submissions are strongly encouraged and should be sent BOTH to merritt@mail.rit.edu AND to merritt@physics.rutgers.edu . This two-year appointment can commence at any time prior to 1 October 2004. Applications will continue to receive full consideration until the position is filled.

No. 20689
Assistant/Associate Professor of Physics
COLUMBUS STATE UNIVERSITY
4225 University Avenue
Columbus, GA 31907-5645
United States
Tel: 706-565-3681
FAX: 706-569-3133
URL1: http://chemgeo.colstate.edu/physicsjob.htm
Email Submission Address: cruzen_shawn@colstate.edu
Email Inquiries: cruzen_shawn@colstate.edu

Attention: Dr. Shawn Cruzen, Chair, Search Committee for Chemistry & Geology

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The CSU College of Science invites applications for a tenure-track position in physics at the level of assistant/associate professor for Fall 2004. A Ph.D. in physics or closely related field, a demonstrated commitment to excellence in science education and a desire to impact the quality of science teaching in

our community are required. The successful candidate's main responsibilities will be to teach two-semester sequences in trigonometry-based and calculus-based physics with laboratories. The candidate will also recruit and advise students preparing to teach physical science. Other teaching opportunities are available depending on the area of interest. Preference will be given to candidates who can contribute in the areas of pre-engineering, astronomy, or geology. Desired qualifications include the ability to oversee the modernization of the physics labs and a willingness to work with the public through the university's outreach facilities. Send application letter, vitae, three reference letters, copies of transcripts, and a statement of teaching philosophy to Dr. Shawn Cruzen, Search Committee Chair, Department of Chemistry & Geology, Columbus State University, Columbus, GA 31907-5645. Review of applications will begin on April 3, 2004, and will continue until the position is filled.

No. 20685
Postdoctoral Position in AGN and Black Hole Research
ROCHESTER INSTITUTE OF TECHNOLOGY
Department of Physics
54 Lomb Memorial Drive
Rochester, New York 14623-5603
USA
Tel: 585-475-5779
FAX: 585-475-5988
URL1: http://astrophysics.rit.edu/
Email Submission Address: djasps@rit.edu
Email Inquiries: djasps@rit.edu

Attention: David J Axon, Head of Physics

Postdoctoral Position in Astrophysics AGN and Black Holes Research Group Department of Physics Rochester Institute of Technology

The AGN and Black Holes Research Group (David Axon, David Merritt Manasse Mbonye, Andrew Robinson, Andras Szell) at Rochester Institute of Technology (http://www.rit.edu/~physics/) invites applications for a NASA funded Post-Doctoral Research position. The successful applicant will work closely with Axon and Robinson on the determination of the Black Holes masses in AGN with double-peaked broad-Balmer lines using Hubble Space Telescope STIS long-slit spectroscopy of the circum-nuclear ionized gas.

The initial appointment will be for 1 year with possible renewal. Research experience in Active Galactic Nuclei, Galaxy Dynamics or a closely related field is desirable. In addition to working on the project applicants for the position are encouraged to maintain and develop their own research interests. Candidates should have a Ph.D. in Astrophysics.

Informal enquiries can be made by e-mail to djasps@rit.edu . Candidates should send a resume and the names and phone numbers of three current references to Dr. David J. Axon, Department of Physics, Rochester Institute of Technology, 85 Lomb Memorial Drive, Rochester, NY 14623-5603. Screening of applications will begin immediately and continue until the position is filled. Email submissions are strongly encouraged.

RIT is an equal opportunity, affirmative action employer strongly committed to a diverse faculty community. Minority candidates accounted for 31% of new faculty for the 2002-03 academic year.

No. 20690
Tenure-track position in astronomy or astrophysics
SEATTLE UNIVERSITY
Department of Physics
Seattle, WA 98122
USA
Tel: (206) 296-5940
FAX: (206) 296-6266
URL1: http://www.seattleu.edu/scieng/phys/
(Department home page)

Attention: David Boness, Chair, Search Committee

Tenure-Track Astronomy or Astrophysics Faculty Position – Seattle University

The Department of Physics at Seattle University (www.seattleu.edu/scieng/phys/) invites applications from astronomers or astrophysicists for a tenure-track position as an assistant professor of physics, to begin September 2004. Ours is an undergraduate-only program, like those at liberal arts colleges. A PhD in astronomy, astrophysics, or physics is required. We strongly favor some postdoctoral research experience and some experience teaching lecture classes at the undergraduate level. The successful candidate will be expected to initiate a research program in an area of contemporary astronomy or astrophysics that will invite student participation in on-campus research and attract external funding. Startup funds are available. Teaching responsibilities include introductory and advanced physics courses for physics majors and non-majors, and also introductory astronomy courses for non-science majors. The Department consists of five full-time faculty with research interests including deep earth geophysics, nuclear and particle theory, cosmology, complex dynamical systems, and the physics of fluids. Seattle University is a Jesuit/Catholic comprehensive university with 6,600 students and a residential campus located in the heart of Seattle, which provides an exciting, world-class urban environment surrounded by outstanding outdoor recreational opportunities. Completed applications must include a cover letter, curriculum vitae, statement of teaching philosophy, statement of research plans, three letters of recommendation, and a separate statement of how your plans would fit our University mission (see http://www.seattleu.edu/home/about_seattle_university/mission/). Send all materials in paper form to David Boness, Chair, Search Committee, Department of Physics, Seattle University, 900 Broadway, Seattle, WA 98122. Review of applications will begin on March 31 and continue until the position is filled. Seattle University is an Equal Opportunity / Affirmative Action educational institution and employer.

No. 20691
Project/Study Manager Atacama Telescope Project
CORNELL UNIVERSITY
Space Sciences Bldg.
Ithaca, NY 14853
Tel:
Email Submission Address: karla@astro.cornell.edu
Email Inquiries: rg39@cornell.edu,jonas@submm.caltech.edu

Attention: Ms Karla Consroe

Cornell University and the California Institute of Technology have entered into an agreement to

collaborate on the Study Phase of a project to build and operate a 25 meter class, far-infrared/submm telescope to be located at very high altitude in the Atacama Desert. It is anticipated that Cornell and Caltech will proceed beyond the Study Phase, towards the joint construction of the facility. The consortium formed by the two institutions seeks applications for the position of Project/Study Manager. The Project/Study Manager will be responsible for overseeing trade and engineering studies with university and industrial concerns, the site survey effort, developing an engineering concept, and defining and supervising a work breakdown structure for the entire project including cost and schedule. Individuals with project management experience, particularly in telescope design and construction, with a degree in Engineering, Physics or Astronomy, will be given preference. The position will be guaranteed for the expected 24 month duration of the Study Phase. Subject to mutual agreement, it is expected that the Project/Study Manager will continue in his/her role in subsequent phases of the project. The Project/Study Manager will be based at Cornell University in Ithaca, NY, and will be a Cornell University employee and eligible for all applicable Cornell employee benefits. Cornell University is an affirmative action/equal opportunity employer. Interested candidates should send a CV, a description of relevant experience and the names of at least three possible sources of reference by April 15, 2004.

No. 20683
Postdoctoral Scholar - Adaptive Optics
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://www.ucolick.org/~koo/home/html
URL2: http://www2.ucsc.edu/ahr/employment
Email Submission Address: director@ucolick.org

Attention: Joseph Miller, Director

UNIVERSITY OF CALIFORNIA, SANTA CRUZ

C E N T E R F O R A D A P T I V E O P T I C S P o s t d o c t o r a l S c h o l a r

The Center for Adaptive Optics (CfAO) invites applications for a non-ladder-rank position in the CfAO. Contingent on the availability of funding, the appointment will be for two years beginning November 2004 (start date negotiable). The appointment may be extended to three years if funds allow. The appointee will be a member of the NSF Science and Technology Center for Adaptive Optics, headquartered at the University of California, Santa Cruz. The appointee will be working within the CfAO Treasury Survey (CATS). This program aims to combine the most advanced AO near- IR images and spectra from Keck with optical images from Hubble Space Telescope to study the evolution of distant galaxies and AGN (see URL: http://www.ucolick.org/~koo/home.html). The appointee will lead one or more subprograms in collaboration with senior participants of CATS, including Jerry Nelson, Director; Claire Max; Sandra Faber; Raja GuhathaKurta; and David Koo. Preference will be given to candidates with demonstrated experience and interest in distant galaxy observational research, AO systems, and instrumentation. Opportunity and funds will be provided for independent research.

RANK: Postgraduate Researcher Step VI to Step VIII, dependent upon experience and qualifications.

SALARY: $38,652 - $41,940

MINIMUM QUALIFICATIONS: PhD or equivalent in Astronomy, Physics, or Mathematics, or a closely related field received within the last three years. Candidates should have experience with extra-galactic observational research. Experience with adaptive optics or instrumentation would be desirable but not essential. Candidates should also have a relevant, refereed publication record and possess the ability to work independently, yet collegially, in a team environment.

TERM OF APPOINTMENT: Two years, contingent on the availability of funding. The appointment may be renewed for one additional year, contingent on positive performance evaluation and availability of funds.

POSITION AVAILABLE: November 1, 2004 (start date negotiable).

APPLY TO: Applicants should send a vita, publication list, brief (one page) summary of relevant research experience, brief (one or two page) statement of research interests within CATS, and the names of three referees (include postal and email addresses and phone and fax numbers) who have been asked by the applicant to submit letters of recommendation (all letters will be treated as confidential documents) to:

Postgraduate Researcher Recruitment c/o UCO/Lick, Office of the Director University of California Santa Cruz, CA 95064 Please refer to provision T04-25 in your reply.

CLOSING DATE: All materials must be received no later than March 31, 2004.

UCSC IS AN AFFIRMATIVE ACTION/EQUAL EMPLOYMENT OPPORTUNITY EMPLOYER. WOMEN AND MINORITIES ARE ENCOURAGED TO APPLY.

No. 20693
Millimeter Detector Arrays
GODDARD SPACE FLIGHT CENTER
Code 685
Greenbelt, MD 20771
USA
Tel: 301-286-0853
FAX: 301-286-1617
Email Submission Address: Alan.J.Kogut@nasa.gov
Email Inquiries: Alan.J.Kogut@nasa.gov

Attention: Dr. Alan Kogut, Search Chair

Goddard Space Flight Center Millimeter Detector Arrays

The Space Sciences Directorate and the Applied Engineering and Technology Directorate at NASA's Goddard Space Flight Center (GSFC) seek a researcher for a civil service position to develop background-limited millimeter and submillimeter wave focal plane detector arrays. Suitable applicants will likely have a PhD in physics, astronomy, electrical engineering, or related field. A broad-based technical background, possibly including but not limited to, microwave/optical metrology, instrumentation, materials science, and device reliability are desirable. Candidates should have a

specialized knowledge or experience in one or more of the following areas: electromagnetic simulation and RF circuit modeling; superconducting structures; bolometric device fabrication, design, and characterization; cryogenic techniques; and low-noise electronics.

Familiarity with commercial electromagnetic simulation software and techniques is a plus. The successful candidate will lead an effort to design, fabricate, and test focal plane detector arrays for use in space based and balloon borne instruments. The position is available immediately. GSFC provides negotiable start-up packages. Applicants should submit a curriculum vitae, list of publications, summary of research interests, and arrange for at least three letters of recommendation to be sent to: Dr. Alan Kogut, Search Chair, Code 685, Goddard Space Flight Center, Greenbelt, MD 20771. NASA is an AA/EEO employer.

No. 20694
Scientist
JET PROPULSION LABORATORY
4800 Oak Grove Dr.
Pasadena, CA 91109
US
Tel:
URL1: http://planetquest.jpl.nasa.gov
(Exoplanetary Research Mission informatio)
Email Submission Address: Glenn.E.Kubat@jpl.nasa.gov
Email Inquiries: Glenn.E.Kubat@jpl.nasa.gov

Attention: Glenn Kubat, Human Resources

Required Skills: Ph.D. in Astronomy, Physics, Planetary Science, or Optical Sciences plus minimum of three years of related experience, or equivalent. A record of astronomical research on extrasolar planets, circumstellar disks, brown dwarfs, or nearby stars. Data analysis experience in high contrast adaptive optics or space coronagraphy. Recognized scientific leader with a proven record of publications and proposals in these areas.

Desired Skills: Demonstrated ability to implement and sustain an independent research program in exoplanetary astronomy, to publish results in refereed journals, and to actively participate in local, national, and international collaborations. Knowledge and experience with optics, space-based observatories and instruments. Excellent interpersonal skills working with scientists and engineers in a team environment.

Will Statement: Will: Participate in the development of the(TPF)Terrestrial Planet Finder coronagraph science mission. Carry out studies of coronagraph design, engineering, and operational issues, with the goal of quantifying their impact on mission science return. Collaborate in these studies with (TPF) Terrestrial Planet Finder Science Working Group members and the(TPF)Terrestrial Planet Finder coronagraph engineering design team, in consultation with Dr. Karl Stapelfeldt. Collaborate in the development of new mission concepts such as the Eclipse Discovery mission (PI John Trauger) to directly image extrasolar Jovian planets with a 2m class space telescope. Carry out an active research program in exoplanetary astronomy. Serve as resource and mentor for others.

No. 20676
Space Interferometry Mission Grid Star Observations
UNIVERSIDAD DE CONCEPCION

Departamento de Fisica
Casilla 160-C
Chile
Tel: 56-41-203092
FAX: 56-41-224520
URL1: http://cluster.cfm.udec.cl
Email Submission Address: doug@kukita.cfm.udec.cl
Email Inquiries: doug@kukita.cfm.udec.cl

Attention: Doug Geisler, Dr.

The Universidad de Concepcion has an immediate opening for a Postdoctoral Research Associate to work on a NASA project to establish grid stars for the Space Interferometry Mission (SIM). The position will be initially for two years, with the very likely possibility of two additional years, contingent on NASA funding and performance. The appointment is expected to start around 1 June 2004. Starting salary is the equivalent of $35,000 US dollars in Chilean pesos. Relocation expenses and a research grant are also included.

The postdoc will be involved in the preparation, observation, reduction and analysis of spectroscopic data needed to establish the grid giant stars which will be used by SIM. This database will also be used to study the structure of the Galaxy and to investigate the chemical enrichment history of the halo. A substantial amount of observing, especially at ESO, is required. In addition, the postdoc will be encouraged to craft an independent research program in line with his/her research interests. The postdoc will have access to the 10% Chilean share of all the telescopes located in the country, including the VLT, Gemini South, and Magellan. Desirable experience for the successful candidate includes spectroscopic observational and data reduction techniques, especially radial velocity data and abundance analysis, and general software experience covering UNIX and/or LINUX, IRAF or IDL.

Concepcion is the second largest city in Chile and lies on the coast 400km south of Santiago, in the lovely south of Chile near many national parks. The Universidad de Concepcion is the largest Chilean university outside of Santiago and has recently implemented a strong research program in astronomy. The astronomy group offers excellent computational infrastructure, as well as ample office and laboratory space in our new astronomy annex.

Applicants should send a curriculum vita, a discussion of relevant experience and research interests, publication list and the names and e-mail addresses of three scientists who are familiar with the applicant's work to the email address listed above. Complete applications should be received by 15 April 2004.

No. 20678
Postdoctoral research positions in INTEGRAL astronomical data analysis and mass modelling
UNIVERSITY OF SOUTHAMPTON
Highfield
Southampton, Hampshire SO17 1BJ
UK
Tel: +2380592750
FAX: +2380596171
URL1: https://www.adminservices.soton.ac.uk/adminweb/jsp/jobs/sJoblist.jsp
URL2: http://www.ston.ac.uk
(Job Vacancies)

Email Submission Address: recruit@soton.ac.uk
Email Inquiries: ajd@astro.soton.ac.uk

Attention: Reference: 03F0545, Personnel Department

Two Postdoctoral Research Fellow positions are available at Southampton with responsibilities in connection the processing of INTEGRAL and other gamma-ray astronomical survey data and providing cleaned data sets for scientific analysis with the ultimate aim of incorporation within the UK-AstroGrid structure. It is anticipated that one of the successful candidates will primarily focus on cleaning the gamma-ray data sets using mass modelling techniques and the responsibilities of the other will centre on the preparation of the survey data archives. Clearly this will constitute a team effort with no absolute boundaries.

INTEGRAL has undergone a year of successful operation and is approved for at least another 3 years. The group is currently involved in a number of projects related to INTEGRAL and other forthcoming ESA and NASA missions. The activity will centre around the group's observational programme based on BATSE, INTEGRAL and Swift data and our involvement in the AstroGrid network. The group also specialises in the use of particle physics modelling techniques to enhance in-flight instrument performance and for re-analysis of archival data. The work will involve the processing of survey data for in-house scientific analysis as well as the provision of the cleaned data sets on the 'Virtual Observatory' for external users. Experience with astronomical data reduction techniques would be advantageous, as would C/C++/Perl programming skills to assist the group's technical activities in support of ESA. Experience with the computer modelling of particle processes, "mass modelling" is desirable for one of the posts.

No. 20677
High Energy Astrophysics
UNIVERSITY OF NEW HAMPSHIRE
39 College Road
406 Morse Hall
Durham, New Hampshire 03824-3525
USA
Tel:

Attention: Professor Roy B. Torbert, Director, Space Science Center

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The Department of Physics and the Space Science Center within the Institute for the Study of Earth, Oceans and Space at the University of New Hampshire, seeks candidates at any rank for a tenure-track faculty position in high energy astrophysics, beginning as early as the 2004-2005 academic year. The applicant must have a Ph.D. or equivalent in Physics, Astronomy or Astrophysics, a strong commitment to teaching and a demonstrated record of independent research and support. Responsibilities include teaching physics courses at all levels, participation in Department and College academic activities, and astrophysics or solar physics research. Outstanding applicants in all areas of astrophysics will be considered, but primary areas of interest are X-and gamma-ray astronomy. The Physics Department has twenty tenure-track faculty and offers programs leading to the B.S., B.A., M.S. and Ph.D. degrees. The University is a Land Grant, Sea Grant and Space Grant institution with approximately 13,000 undergraduate and graduate students. Send letter of application, curriculum vitae, statement of research, and the names, addresses and telephone numbers of three references to: Professor Roy B. Torbert, Director, Space Science Center, 39 College Road, University of New Hampshire, Durham, NH 03824-

3525. Interviews of the applicants will begin around 15 March, 2004 and will continue until the position is filled.

The University is committed to enhancing the diversity of its faculty and staff and encourages applications from women, persons of color, persons with disabilities and veterans.

No. 20679
Research Fellow, Department of Physics and Astronomy
UNIVERSITY OF SUSSEX
Sussex House
University of Sussex
Falmer, Brighton BN1 9RH
United Kingdom
Tel: 01273 678706
FAX: 01273 877401
URL1: http://astronomy.susx.ac.uk/index.html
(Further information about the research g)
URL2: http://www.susx.ac.uk/central/jobs
Email Submission Address: recruitment@sussex.ac.uk
Email Inquiries: a.liddle@sussex.ac.uk

Attention: Prof Andrew Liddle

Department Of Physics And Astronomy Research Fellow (Ref 557) Research and Analagous Faculty Grade 1A Fixed Term for 2 years Applications are invited for a postdoctoral position in theoretical astrophysics and cosmology. This full-time post will start in October 2004. The researcher will work at the interface of astrophysics and particle cosmology, with special focus on observational tests of the inflationary cosmology. Informal enquiries may be directed to Professor Andrew Liddle (a.liddle@sussex.ac.uk), and further information about the research group can be found at http://astronomy.susx.ac.uk/index.html Salary in the range: £18,265 to £27,339 per annum (pay award pending) depending upon experience. Closing date:Wednesday 31 March 2004. Application details are available from and should be returned to Human Resources, Sussex House, University of Sussex, Falmer, Brighton BN1 9RH. Tel: (01273) 678706, fax: (01273) 877401, email: recruitment@sussex.ac.uk . Applicants should arrange for three referees to send letters of recommendation directly to the above address by the above deadline. Details of all posts can also be found via http://www.susx.ac.uk/central/jobs An Equal Opportunity Employer

No. 20660
Postdoc in Stellar Astronomy
UNIVERSITY OF WYOMING
University of Wyoming
1000 E Univ Ave - Dept 3905
Laramie, WY 82071
USA
Tel: 307-766-2982
FAX: 307-766-2652
URL1: http://physics.uwyo.edu
Email Inquiries: chipk@uwyo.edu

Attention: Chip Kobulnicky, Assistant Professor

The University of Wyoming invites applications for a postdoctoral position in the Department of Physics & Astronomy to work with Prof. Chip Kobulnicky on observational topics related to massive stars in the Galaxy, massive binaries, and kinematics of OB associations. Applicants should have completed a Ph.D. in astronomy or astrophysics and be ready to start as early as summer 2004 but no later than fall 2004. Observational experience with stellar kinematics is desirable. Duties will include leading graduate and undergraduate student observing teams at the WIRO telescope. Personal research is encouraged. Applicants interested in building teaching experience may elect to teach one physics or astronomy course each year. Resources include abundant access to Wyoming's 2.3 m telescope with 20' imager, an integral-field fiber-fed spectrograph, and a young energetic group of astronomers and postdocs. Applicants are invited to call Chip Kobulnicky to discuss research interests and job duties. Applicants should send a CV, a summary of research and teaching goals, and three letters of recommendation to Chip Kobulnicky at the above address. Call or email for additional details. Applications completed by 1 April 2004 will receive first consideration. AAE/EOE.

No. 20680
Chair in Space Science
UNIVERSITY OF LEICESTER, UK
Tel:
URL1: http://www.star.le.ac.uk
(Leicester Astrophysics home page)
URL2: http://www.le.ac.uk
(University home page)

Attention: Caroline Smyth

Chair in Space Science - UNIVERSITY OF LEICESTER, UK

A new Chair in Space Science is available in the Department of Physics and Astronomy, University of Leicester, UK. This fully tenured professorial post will be based in the Department's internationally renowned Space Research Centre. Applicants should have an international standing in their field, ideally with research expertise in one or more of the following areas: Planetary Science, Earth Observation Science, Space Instrumentation.

The Department has a wide-ranging research programme, which attracts external funding in excess of £4 million per annum and achieved a grade 5 rating in the last three Research Assessment Exercises. The current full-time academic staff complement of 30, is supported by over 100 research, technical and clerical staff. A purpose built Space Research Centre houses the Space Research Group and provides laboratories, clean rooms and other facilities for instrument development, Planetary Science, Earth Observation Science and Bio-imaging.

Informal enquiries many be made to the Head of Department, Professor Robert Warwick (tel +44 (0)116 252 3517, e-mail rsw@star.le.ac.uk) or the Director of the Space Research Centre, Professor George Fraser (tel +44 (0)116 252 3542, e-mail gwf@star.le.ac.uk).

Application forms and further particulars are available from the Personnel Office. Tel: +44 (0)116 252 5114. Fax: +44 (0)116 252 5140. Email: jobs@le.ac.uk or via the web on http://www.le.ac.uk/personnel/jobs . Closing date for the receipt of applications is 31 March 2004.

No. 20671

Postdoctoral and Senior Research Awards in the Space and Planetary Sciences
NATIONAL RESEARCH COUNCIL OF THE NATIONAL ACADEMIES
Tel:
URL1: http://www.national-academies.org/rap

Attention:

National Research Council Research Associateship Programs:

Postdoctoral Research Awards, Senior Research Awards, Summer Faculty Fellowships,

The National Research Council of the National Academies is accepting applications for awards for independent scientific research at the postdoctoral level and beyond for research to be conducted in residence at US Government laboratories. Awards will be offered in most areas of science and engineering, including astronomy, planetology, astrophysics, solar research, cosmology and related disciplines.

Among participating laboratories are: Air Force Research Laboratory, Naval Research Laboratory, Naval Postgraduate School, NASA Astrobiology Institute, NASA Ames Research Center, NASA Goddard Space Flight Center, NASA Johnson Space Center, NASA Marshall Space Flight Center, NASA Kennedy Space Center, NASA Glenn Research Center, NASA Jet Propulsion Laboratory, NASA Langley Research Center.

Awardees design their own research projects to be compatible with the interests of the sponsoring laboratory. Stipends for recent Ph.D. recipients range from $36,000 to $61,000 and are higher for additional experience. Awards also include support for relocation, professional travel and health insurance. Annual application deadlines are February 1, May 1, August 1, and November 1. Detailed program information, including instructions on how to apply, can be found at: www.national-academies.org/rap

Questions should be directed to the NRC at tel: 202-334-2760 e-mail: rap@nas.edu

No. 20681
Permanent Faculty Position (Lectureship) in Theoretical Astrophysics
UNIVERSITY OF LEICESTER, UK
Tel:
URL1: http://www.star.le.ac.uk
(Leicester Astrophysics home page)
URL2: http://www.le.ac.uk
(University of Leicester home page)

Attention: Caroline Smyth

Lectureship in Theoretical Astrophysics

Department of Physics and Astronomy, University of Leicester, UK

A permanent faculty position is available in the Department's internationally renowned Theoretical

Astrophysics Group. Applicants should have an active research programme in theoretical astrophysics, an excellent publication record and clear leadership potential.

Informal enquiries may be made to Professor A.R.King via email at andrew.king@astro.le.ac.uk .

Application forms and further particulars are available from the Personnel Office. Tel: +44 (0)116 252 5114. Fax: +44 (0)116 252 5140. Email: jobs@le.ac.uk or via the web on http://www.le.ac.uk/personnel/jobs .

Closing date 31 March 2004

No. 20688
Director, Large Binocular Telescope Observatory
UNIVERSITY OF ARIZONA
933 N. Cherry Avenue
Tucson, AZ 85721
USA
Tel: 520-621-9379
FAX: 520-621-7852
URL1: http://lbto.org
(project information)
URL2: http://www.hr.arizona.edu
(position information)
Email Submission Address: aspitz@as.arizona.edu

Attention: Anna H. Spitz

The Large Binocular Telescope Corporation (LBTC) seeks an Observatory Director who will have overall responsibility for the completion, commissioning and scientific operations of the Large Binocular Telescope (LBT). Located on Mt. Graham, Arizona, the LBT will be the world's largest optical/IR telescope. The LBT will have twin 8.4-m diameter primary mirrors spanning a 22.8-m baseline. The initial complement of instruments includes prime focus cameras and optical and infrared imaging spectrometers. The LBT will also have adaptive secondaries and capabilities for interferometric imaging at IR and optical wavelengths.

The LBT Observatory Director will report to the LBTC Board of Directors and will be formally employed through the University of Arizona. Qualifications for the position include: (1) demonstrated experience in the management of large, complex, state-of-the art scientific projects of comparable scale to the LBT; (2) a Ph.D. in Astronomy, Physics or a related field; and (3) the ability to work with LBTC Board, the project staff and scientific communities commensurate to achieve the technical and scientific goals of the project within the resources available.

Applications, expressions of interest, nominations, or requests for additional information should be sent to the attention of Anna H. Spitz. Applications must include a bibliography, vita, and the names of three references. The selection process will begin on April 2, 2004 and continue until an appointment is made. Applicants will be considered without regard to citizenship or national origin. The University of Arizona is an EEO/AA employer. M/W/D/V.

No. 20653

Adaptive Optics Systems Engineer
CALIFORNIA ASSO. FOR RESEARCH IN ASTRONOMY(W.M. KECK OBSERVATORY)
65-1120 Mamalahoa Hwy.
Kamuela, HI 96743
USA
Tel:
URL1: http://www.keckobservatory.org
Email Submission Address: employment@keck.hawaii.edu
Email Inquiries: employment@keck.hawaii.edu

Attention: Adaptive Optics Systems Engineer

The WMKO, which operates the world's two largest optical/infrared telescopes, seeks an Adaptive Optics Systems Engineer to work at its headquarters in Waimea on the Big Island of Hawaii and on the summit of Mauna Kea. This is a regular position with relocation assistance and a complete and competitive benefits package

The Keck telescopes are both equipped with natural guide star adaptive optics (AO) systems and a laser guide star system is currently undergoing integration. The development of new wavefront controllers/cameras and a laser has recently begun and next generation systems are under discussion.

The successful candidate will play a lead systems-level and hands-on role from the design through commissioning and operation of facility-class AO capabilities and systems, and in the improvement and optimization of existing systems. Minimum requirements include: A Master of Science degree in optics, the physical sciences, or engineering, or equivalent experience; three years of relevant systems and optics experience, and optical design and engineering skills.

Employment is conditional on successful completion of drug tests and high altitude physical. Fax (808) 885-4464 or mail resumes, references, and salary history to: Adaptive Optics Systems Engineer, CARA, 65-1120 Mamalahoa Hwy., Kamuela, HI 96743 or employment@keck.hawaii.edu . EEO/M/F/D/V

No. 20654
Tenure-Track Faculty Position in Astronomy/Astrophysics/Cosmology
UNIVERSITY OF MISSOURI-COLUMBIA
223 Physics Bldg.
Columbia, MO 65211
USA
Tel: 573-882-3335
FAX: 573-882-4195
Email Submission Address: sturguessg@missouri.edu

Attention: Astronomy/Astrophysics/Cosmology Search Committee

The Department of Physics & Astronomy at the University of Missouri - Columbia anticipates filling a tenure-track faculty position in Astrophysics/Cosmology starting September 1, 2004. The candidate should have an excellent research record, an ability to teach effectively across the astronomy curriculum at all levels, and an interest in developing innovative techniques for undergraduate education. The successful candidate is expected to establish a strong externally funded research program, and to contribute to the department's aggressive effort to build an internationally visible center for astrophysics

and cosmology at MU. Candidates in any area of astronomy or astrophysics, including theory, observation, and numerical experiment, are invited to apply; however, theoretical or observational astronomers whose research interests overlap with existing departmental research in gravitation, stellar evolution, circumstellar and interstellar dust are particularly encouraged.

Information about the Physics & Astronomy Department is available at http://www.physics.missouri.edu .

Applicants should possess a Ph.D. in physics or astronomy, postdoctoral experience, a strong research record, and a commitment to excellence in teaching. Applicants should submit a curriculum vitae, bibliography, a clear research plan, and a statement of teaching philosophy, and should arrange for at least three letters of reference to be sent to Astrophysics/Cosmology Search Committee, Department of Physics & Astronomy, University of Missouri, Columbia, MO 65211. Tel: (573) 882-3335; Fax: (573) 882-4195; email: sturguessg@missouri.edu .

To ensure full consideration, applications should be received by May 1, 2004. Women and minorities are encouraged to apply. To request ADA accommodations, please contact our ADA Coordinator at (573) 884-7278 (V/TTY).

No. 20662
Research Assistant - Observational Astronomy
UNIVERSITY OF WYOMING
University of Wyoming
1000 E Univ Ave - Dept 3905
Laramie, WY 82071
USA
Tel: 307-766-5154
FAX: 307-766-2652
URL1: http://physics.uwyo.edu
Email Inquiries: ddale@uwyo.edu

Attention: Daniel Dale, Assistant Professor

A research assistant in observational cosmology is sought. Applicants should have a Master's or a Bachelor's degree in astronomy or physics with programming experience, ideally using astronomical data reduction packages such as IRAF. The position may be renewed for a second year.

The position will entail frequent observing at the University of Wyoming's 2.3 m telescope and the processing of the data obtained. The main research project is a large, narrowband imaging survey for star-forming galaxies spanning the latter half of the age of the Universe. The overall goal of the project is to robustly parametrize the evolution of the cosmic star formation rate density over this timescale.

The University of Wyoming is an equal opportunity employer.

No. 20659
STAFF ASTRONOMER WORKING IN NATIONAL EDUCATION AND PUBLIC OUTREACH
CHALLENGER CENTER FOR SPACE SCIENCE EDUCATION
1250 N. PITT ST.
ALEXANDRIA, VA 22314

USA
Tel: 703-683-9740
FAX: 703-683-7546
URL1: http://www.challenger.org
(Organization Website)
URL2: http://www.voyageonline.org
(Voyage Project Website)
URL3: http://www.challenger.org/journey
(Journey through the Universe Program)
Email Submission Address: SBURKMAN@CHALLENGER.ORG
Email Inquiries: JGOLDSTEIN@CHALLENGER.ORG

Attention: SARAH BURKMAN, HR ADMINISTRATOR

The Space Science Research department at Challenger Center for Space Science Education is in the process of building a research group in planetary science and astronomy. Ongoing research programs include comparative studies of planetary atmospheres, and modeling of extrasolar planetary systems. Staff expertise includes the use of ground- and space-based thermal and near-IR spectrometers and imaging systems, and the development of IR heterodyne spectrometers. These activities are conducted in collaboration with the Laboratory for Extraterrestrial Physics at Goddard Space Flight Center, the University of Maryland Astronomy Department, and researchers nationally and internationally.

Currently Challenger Center research staff split their time between education & public outreach (E&PO) on a national level and research. Headquartered in Alexandria, VA, Challenger Center oversees a network of 52 Learning Centers located in museums and science centers, universities, and school districts across the US, Canada, and the UK.

Challenger Center has funding for an astronomer or planetary scientist working full time in education and public outreach. Once hired the researcher will be encouraged to submit research proposals that can allow them to backfill up to 50% of their time with research activities. We are seeking candidates that are interested in conducting research in programmatic areas consistent with Challenger Center research interests. The position is available immediately, and is located in Alexandria, VA.

Minimum Qualifications: Ph.D. in astronomy, planetary science, or a closely related field, and a demonstrated interest and capability in K-12 education and/or public outreach. Salary will be commensurate with experience.

To apply: Please send curriculum vitae, salary history, including a list of publications and a statement of current research and education interests and future plans to the above address. Applicants should be ready to arrange for three letters of reference to be sent confidentially to the same address. The position will remain open until a suitable candidate is identified.

No. 20687
POSTDOCTORAL FELLOW, Far-infrared and Submillimetre Astronomy
UNIVERSITY OF TORONTO
Department of Astronomy and Astrophysics
McLennan Labs, 60 St. George Street, Room 1403
Toronto, Ontario M5S 3H8
Canada
Tel:

Email Inquiries: netterfield@astro.utoronto.ca

Attention: C. B. Netterfield

A postdoctoral research fellowship beginning September 1, 2004 (but available sooner) is being offered at the Department of Astronomy and Astrophysics, University of Toronto. The incumbent will collaborate with C. B. Netterfield and P. G. Martin on preparation and analysis of multiwavelength observations with BOOMERANG, BLAST, and the Spitzer Space Telescope, which offer insight into a variety of issues in extragalactic and Galactic science through measures of point sources and diffuse emission.

HOW TO APPLY:

Applicants should send a curriculum vitae, statement of research interests and arrange to have 3 letters of recommendation sent to:

C. B. Netterfield Department of Astronomy and Astrophysics University of Toronto McLennan Labs, 60 St. George Street, Room 1403 Toronto, Ontario CANADA, M5S 3H8.

The deadline for applications and letters of recommendation is 31 March 2004. Electronic submission of materials is acceptable (netterfield@astro.utoronto.ca).

No. 20674
Postdoc position in cosmology
UNIVERSITY OF OSLO
PB 1032 Blindern
Oslo, Oslo 0315
Norway
Tel:
URL1: http://www.astro.uio.no/ita/english.html
(Home page of the institute)
URL2:
http://www.uio.no/admhb/reglhb/personal/tilsettingvitenskapelig/guidelinespostdoctor.html
(Guidelines for postdoc positions at UiO)
URL3: http://www.physics.uio.no/
(Home page of the physics department)
Email Inquiries: mats.carlsson@astro.uio.no

Attention: Gro Corell, personell consultant

One postdoc position is available at the Institute of theoretical astrophysics, University of Oslo, from the 1st of May 2004 (a later starting date can be negotiated). The position is connected to the project "Shedding light on dark energy", a joint project between the Institute of theoretical astrophysics and the Department of Physics, funded by the Research Council of Norway. The position can be held for a period of up to two years. The successful applicant should have completed a Ph.D. degree in astrophysics/physics or a closely related subject by the time she/he takes up the position, and is expected to carry out theoretical and/or observational research on problems related to dark energy. The salary level is NOK 362,400 per year.

Applications must include a curriculum vitae, list of publications and a statement of research interests (up to two pages). In addition, applicants should arrange for two letters of reference from people familiar with their research to be sent to the address above. The deadline for applications is the 1st of April 2004.

The University of Oslo is an equal opportunities employer. Women are encouraged to apply.

No. 20686
Post-doctoral Research Associate in Theoretical Astrophysics
UNIVERSITY OF LEICESTER
Tel:
URL1: http://www.le.ac.uk
(University of Leicester)
URL2: http://www.astro.le.ac.uk
(Theoretical Astrophysics group)
Email Inquiries: walter.dehnen@astro.le.ac.uk

Attention: Caroline Smyth

University of Leicester Department of Physics and Astronomy

Research Associate in Theoretical Astrophysics

R&AIA 18,265 to 27,339 pounds per annum Available from 1 October 2004

Ref: R0643/NT

A position is available for up to three years to work with Dr Walter Dehnen on Galactic structure and dynamics. Applicants should have a PhD in Astronomy, Physics, or Mathematics and expertise in the subject area.

Applicants are encouraged to make informal inquiries to Dr W. Dehnen via email at walter.dehnen@astro.le.ac.uk .

Downloadable application forms and further particulars are available by following the link below, or in hardcopy from the Personnel Office, tel: 0116 252 5114, fax: 0116 252 5140, email: personnel@le.ac.uk , http://www.le.ac.uk/personnel/jobs . Please note that CVs will only be accepted in support of a fully completed application form.

Closing date: 31st March 2004

No. 20675
Postdoctoral and Ph.D. positions in Infrared Astronomy/Interferometry
MAX-PLANCK INSTITUTE FOR RADIO ASTRONOMY
Auf dem Huegel 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-bonn.mpg.de
Email Inquiries: weigelt@mpifr-bonn.mpg.de

Attention: Gerd Weigelt, Prof.

Applications are invited for postdoctoral and Ph.D. positions 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: star formation, active galactic nuclei, radiative transfer modeling, infrared long-baseline interferometry, or astronomical image processing (preferably with experience in object-oriented programming).

The successful applicants will be expected to participate in the development of interferometric methods, interferometric observations, and their interpretation. The positions offer excellent opportunities for high-resolution studies using the VLT Interferometer (in particular, its AMBER phase closure instrument), the Large Binocular Telescope (LBT LINC beam combiner instrument), and speckle interferometry. As our group is a member of the international VLTI AMBER and the LBT LINC consortia, we own a large amount of both VLTI and LBT Guaranteed Observing Time.

The appointments are initially for one year and are 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 sent to Prof. Gerd Weigelt (weigelt@mpifr-bonn.mpg.de).

Review of applications will begin on 5 Apr 2004 and continue until the positions are 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. 20661
POSTDOC POSITION - Department of Physics, Applied Physics & Astronomy
RENSSELAER POLYTECHNIC INSTITUTE
110 8th Street
Troy, NY 12180-3590
USA
Tel:
URL1: http://www.rpi.edu/dept/hr
Email Inquiries: heidi@rpi.edu

Attention: Heidi Newberg

Rensselaer Polytechnic Institute invites applications for a postdoctoral research associate position in Galactic Structure. Opportunities, if appropriate will be provided to teach introductory physics in Rensselaer's award-winning studio physics classrooms with experienced course coordinators.

The successful candidate will work with Heidi Newberg and an international group of scientists using data from the Sloan Digital Sky Survey (SDSS) to discover substructure in the Milky Way halo and thick disk. In addition to his or her own research program, the successful applicant will be expected to collaborate with the PI to provide scientific support for a possible 3-year extension to the SDSS which

would highlight Galactic structure studies.

The nominal starting date is July, 2004, but earlier/later appointments are negotiable. The initial appointment is for one year, renewable for up to three years, contingent on performance and pending funding. Applicants should have a Ph.D. in astronomy or physics at the start of the appointment. Good computer skills and experience in astronomical data analysis (stellar spectroscopy and/or photometry) are also expected.

Rensselaer offers an excellent benefits package including health, dental, life insurance, retirement, tuition, etc. Visit our Web site at: www.rpi.edu/dept/hr.

To be considered, send a CV, research statement, and three letters of recommendation (including telephone numbers and e-mail addresses) indicating job number 200401004 to:

Heidi Newberg, Physics Department, Rensselaer Polytechnic Institute, 110 8th Street, Troy, NY 12180-3590. Please e-mail inquiries to heidi@rpi.edu .

Rensselaer is an Equal Opportunity/Affirmative Action Employer. Women and Minorities are strongly encouraged to apply.

No. 20682
Postdoctoral Research Fellow
CALIFORNIA INSTITUTE OF TECHNOLOGY
770 So. Wilson Ave.
MS 100-22
Pasadena, CA 91125
USA
Tel: 626-395-1802
FAX: 626-397-7018

Attention: Mary Ellen Barba, Supervisor of Staff Operations

Applications are invited for a postdoctoral research position to work with Dr. Joseph Mazzarella and collaborators. The primary objective of the grant funding this research is to assemble a large, comprehensive database of published spectra and derived parameters (diagnostic line ratios, line widths, profile asymmetries, nuclear spectral classifications, etc.) for galaxies and AGNs, and assimilate them into the NASA/IPAC Extragalactic Database (NED, http://nedwww.ipac.caltech.edu). NED is based at the Infrared Processing and Analysis Center (IPAC, http://ipac.caltech.edu), a Caltech/JPL facility located on the Caltech campus in Pasadena, California. The research will primarily involve analysis of the largest collection of multiwavelength spectral parameters for galaxies ever assembled. This will guide the development of new content, archive connectivity, query, and visualization services that will enhance the research capabilities of NED for users around the world.

Candidates should have obtained, by the starting date, a Ph.D. in astronomy, physics, or in information technology with a background and interest in astrophysics. Astronomers with a strong interest in the utilization of statistical analysis or machine learning ("data mining") algorithms for making objective classifications and discoveries from astronomical archives are particularly encouraged to apply. Experience with data processing and analysis of large datasets, and some computer programming skills, are essential. Research experience and interest specifically in the interpretation of spectroscopic

observations is highly desirable.

This position is funded by NASA and is for one year, renewable up to three years. The start date is flexible, but preferably before September 2004. Applications should include a letter describing relevant experience and interests, curriculum vita, bibliography, and three letters of recommendation sent to the above address. The application deadline is 15 April 2004.

Please contact Dr. Mazzarella at mazz@ipac.caltech.edu if you have any questions regarding this position.

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

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aas@aas.org