

RECRUTEMENT

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RESEARCH ASSOCIATE POSITION IN PARTICLE PHYSICS ON BABAR/ FUTURE LINEAR COLLIDER

Rutherford Appleton Laboratory, Oxfordshire

The Particle Physics Department at the Council for the Central Laboratory of the Research Councils (CCLRC) invites applications for a Research Associate in particle physics. The appointment will be initially for three years, with a possible extension by up to two years.

The research will be divided between the BaBar experiment at SLAC, and a new R&D project for the future e^+e^- linear collider.

For BaBar, the RAL group are responsible for analysis of physics data, support for computing in the UK, and for components of the online and offline software. For the linear collider, the RAL group is involved in physics studies for heavy flavour identification in the TeV regime, and in a programme of R&D for a vertex detector at this machine.

Applicants should have a Ph.D. in particle physics, or equivalent experience.

Further information can be obtained from Chris Damerell e-mail C.Damerell@rl.ac.uk, or from Neil Geddes e-mail N.J.Geddes@rl.ac.uk. More information about the RAL Particle Physics Department can be obtained from: <http://hepwww.rl.ac.uk>

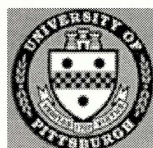
The salary range is between £14,140 and £26,600. Progression within the salary range is dependent upon performance. A non-contributory pension scheme, and a generous leave allowance are also offered.

Application forms can be obtained from: Recruitment Office, Personnel Division, Rutherford Appleton Laboratory, Chilton, Didcot, Oxfordshire, OX11 0QX. Telephone (01235) 445435 (answerphone) quoting reference VN1771/99. More information about CLRC is available from CCLRC's World Wide Web pages at <http://www.cclrc.ac.uk>

All applications must be returned by 31 March 1999.

The CCLRC is committed to Equal Opportunities and to achieving the Investors In People standard. A no smoking policy is in operation.

**COUNCIL FOR THE CENTRAL LABORATORY OF
THE RESEARCH COUNCILS**



FACULTY POSITION IN INTERMEDIATE ENERGY THEORETICAL PHYSICS DEPARTMENT OF PHYSICS AND ASTRONOMY

UNIVERSITY OF PITTSBURGH

The Department of Physics and Astronomy is searching for a faculty member in intermediate energy theory. This tenure-stream Assistant Professor appointment, which is subject to budgetary approval, would start on or after September 1, 1999. This appointment, is part of a proposed new partnership between the University of Pittsburgh and Jefferson Lab designed to promote our mutual interests in the quark structure of matter, especially nucleon resonances. The successful applicant will be based in Pittsburgh as a regular faculty member, but must also spend substantial periods at Jefferson Lab. Candidates should have an ability to teach effectively at both the graduate and undergraduate levels, and to carry out a significant research program in intermediate energy theory with emphasis on topics related to the University of Pittsburgh's experimental programs at Jefferson Lab. The candidate will be expected to attract their own research funding.

We expect the successful candidate to have broad scientific interests, to maintain an active research program, and to be capable of and interested in reaching out to other members of our Department and to the intermediate energy and particle physics community in Pittsburgh.

Please send a curriculum vitae, bibliography, statement of research interests, and a list of references to:

**Professor Frank Tabakin, Chair, Department of Physics
and Astronomy, 100 Allen Hall, University of Pittsburgh,
Pittsburgh, PA 15260** Applications should be received
before April 30, 1999 to ensure full consideration.

The University of Pittsburgh is an Equal Opportunity,
Affirmative Action Employer. Applications from minorities and
women are particularly encouraged.



NEW MEXICO CENTER FOR PARTICLE PHYSICS Post Doctoral Research Associate Positions UNIVERSITY OF NEW MEXICO

The New Mexico Center for Particle Physics seeks applicants for two Post Doctoral Research positions to start as early as Spring, 1999. Our research program includes the CDF experiment at Fermilab, the ATLAS experiment at the LHC, and the High Resolution Fly's Eye (Hi Res) and Pierre Auger (Auger) extreme high energy cosmic ray experiments. The current openings are in the silicon pixel program in ATLAS and in the air fluorescence programs in HiRes/Auger. As minimal qualifications, applicants should possess a Ph.D. in Experimental High Energy Physics or Particle Astrophysics and have demonstrated a potential for excellence in research. Interested individuals should submit a letter of application including curriculum vitae, and the names of three references to: Professor John Matthews, Department of Physics and Astronomy, University of New Mexico, 800 Yale Blvd. NE, Albuquerque, NM 87131. *The University of New Mexico is an Equal Opportunity/Affirmative Action Employer and strongly encourages applications from members of traditionally underrepresented groups.*

University of Houston

Postdoctoral Position in Experimental Particle Physics

The Experimental Intermediate Energy Physics group at the University of Houston is seeking postdoctoral candidates to work with the group in its experimental research programs. We are particularly interested in persons who would commit to work on our upcoming research involving strangeness in nuclei at the Jefferson Laboratory (<http://www.jlab.org>), but overlap with other areas of interest is also possible. An outline of the research programs of the group can be obtained at <http://bart.phys.uh.edu>.

Interested candidates are asked to contact

**Ed Hungerford (Department of Physics, University of
Houston, Houston, TX 77204 hunger@uh.edu)**

and supply a current vita, a letter expressing interest in the position and the names and addresses of at least three references. The position is available immediately. Applications from minorities or other under-represented groups are encouraged to apply.

Oak Ridge National Laboratory

LINEAR ACCELERATOR PHYSICISTS & ENGINEERS

Oak Ridge National Laboratory invites applications for positions in linear accelerator physics and engineering with the Spallation Neutron Source which is a collaborative project involving five DOE Laboratories for the construction of a next-generation neutron source. The SNS consists of a 35-peak-mA H^+ ion source, an RFQ driven 1-GeV linac operating at a 6% duty factor, and a 1200-turn accumulator ring with a 221-m circumference. This accelerator system will produce intense short-pulse spallation neutrons at 60 Hz from a 1-MW liquid-Hg target for a variety of state-of-the-art instrumentation. This facility, a line-item-funded construction project sited at ORNL, will be

completed in 2006. SNS will be the premier neutron facility in the U.S. Los Alamos National Laboratory is responsible for the design and construction of the linac. ORNL is responsible for overall integration and operation. Installation and commissioning are shared responsibilities. Both senior and mid-level positions are available.

Senior Linear Accelerator Physicist/Engineer

Responsible for the coordination, integration, oversight, and day-to-day management of the ORNL linac activities from design through operation. Must have an advanced degree in science or engineering with at least 5 years professional linac experience. A demonstrated record of outstanding achievement in the areas of design, development, fabrication, testing, installation, commissioning, and operation of large linac facilities required. Ability to assume a major role in the installation, commissioning, and operation of the SNS linac necessary. Excellent communication skills and the desire to work in a geographically diverse team environment on technically challenging problems essential.

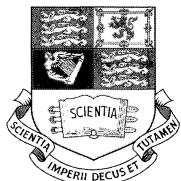
Linear Accelerator Physicist/Engineer

Participate in linac physics design and specification, including error and commissioning studies with beam dynamics codes, assist in hot and cold rf structure modeling and assessment, rf system design, and instrumentation. Must have an advanced degree in physics, engineering, or related subject and have several years of professional experience in accelerator design, commissioning and operation; and have specific experience with linacs. A demonstrated potential for outstanding achievement sought. Good communication skills and the desire to work in a team environment are essential. Maybe initially stationed at Los Alamos.

Qualified candidates should submit a curriculum vitae with a list of three or more references to:
Selection Committee, Attn: Dr. David Olsen, ORNL SNS Project, PO 2009, Dept. CERN, Oak Ridge, TN 37831-8218, or e-mail to olsendk@ornl.gov.

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Imperial College of Science, Technology and Medicine London

Lectureship in High Energy Physics

Applications are invited for the post of Lecturer in High Energy Physics at the Blackett Laboratory, Imperial College, London.

The group's active experimental programme embraces the ALEPH experiment at LEP, the ZEUS experiment at HERA, the BABAR experiment at SLAC, the CMS and LHC-B experiments at LHC and the UK Dark Matter Experiment. It has also recently joined the D0 experiment at the Tevatron. Within the group there is a strong tradition of detector development and construction which has led to key activities in the above experiments. Further details of the group's programme may be found on:

<http://www.hep.ph.ic.ac.uk/>

It is anticipated that the starting date for this position will be October 1st, 1999 and that the appointee will initially take responsibility for the new D0 activity.

Following a successful 3 year probationary period this will become a tenured teaching position.

Salary will be in the range £16,655 - £29,048 plus £2,134 London allowance.

Further information may be obtained from

Professor P J Dornan,
Blackett Laboratory, Imperial College, London SW7 2AZ, UK.
Email: P.Dornan@ic.ac.uk

to whom applications, comprising a curriculum vitae, a list of publications and the names and addresses of three referees should be sent, by **10 May 1999**.

*The College is striving towards Equal Opportunities
At the leading edge of research, innovation and learning*



STAFF SCIENTIST (Position #PR2140)

Thomas Jefferson National Accelerator Facility is a DOE-sponsored laboratory operated by the Southeastern Universities Research Association. Jefferson Lab's primary mission is to study strongly interacting matter with multi-GeV electromagnetic probes. The experimental program includes both high energy nuclear physics and low energy particle physics.

Jefferson Lab invites applications for a staff scientist position with the Hall C group. This is intended to be a senior level position, but more junior candidates with exceptional qualifications may be considered.

The core Hall C equipment consists of two focussing magnetic spectrometers, high power ^1H and ^3H cryogenic targets, and dynamically polarized H and D targets. Flexibility is the key to the Hall C program and special purpose detector systems are developed as required. In the next few years, we will be conducting experiments on deuteron photodisintegration, the pion charge form factor, inclusive and exclusive measurements in the nucleon resonance region, electroproduction of lambda hypernuclei, G_{Ea} form factor measurements, studies of short range correlations, and the G_{p} parity violation experiment.

A Ph.D. in experimental nuclear, particle, or high-energy physics is required plus a minimum of 5 years of relevant experience beyond the Ph.D. The successful candidate should have a track record of relevant publications in experimental nuclear, particle, or high-energy physics. Experience with spectrometers, detectors and data analysis from intermediate/high energy experiments is essential, and experience with electromagnetic probes is preferred. The successful candidate will be expected to support and expand the physics research program for Hall C.

Applicants should send a curriculum vitae, copies of any recent (un)published work, and arrange to have letters from at least three references sent to: **JEFFERSON LAB, Attn: Employment Manager, Mail Stop 28D, 12000 Jefferson Ave., Newport News, VA 23606, USA**

Please specify position number PR2140 and job title when applying.
Jefferson Lab is an Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSOCIATE POSITIONS IN THE BABAR EXPERIMENT

The High Energy Physics Group at Lawrence Livermore National Laboratory (LLNL) has immediate openings for post-doctoral research associate positions in the BaBar experiment at **Stanford Linear Accelerator Center (SLAC)**.

LLNL plays a major role in BaBar detector development, simulations and data analysis. Our main contributions have been in the neutral hadron/muon detector (IFR) subsystem, partially designed and constructed by LLNL, and in the global simulation of the BaBar detector, to which we apply our large-scale computational resources. Our group is also conducting a dark-matter axion search and is involved in the MINOS neutrino oscillation experiment at Fermilab and fixed-target experiments at Fermilab, Brookhaven and Los Alamos and the development of Next Linear Collider detectors.

Successful applicants will work on the BaBar experiment and are expected to take a leading role in the commissioning of the IFR detector, in software development for data reconstruction and in data analysis for CP violation physics. Experience in C++ programming, large UNIX computer systems, and detector hardware is desired.

Candidates should send a curriculum vitae, and three letters of recommendation to: University of California, Lawrence Livermore National Laboratory, Dr. Douglas Wright, L-50, Dept. AJCY319PH, P.O. Box 808, Livermore, CA 94551. Or e-mail directly to: wright20@llnl.gov. Lawrence Livermore National Laboratory is an equal opportunity employer, with a commitment to workforce diversity.

Applications will be considered until the positions are filled.

University of California

 **Lawrence Livermore
National Laboratory**



UNIVERSITY OF FLORIDA

Senior Electrical Engineer

The Department of Physics at the University of Florida has an immediate opening for a senior engineer to participate in the development of digital and analog electronics for several large international projects in high-energy physics and astrophysics. This work includes the design of high-speed digital processor boards, data acquisition systems, control systems, and test facilities. Preparation of bids, reports, papers, and presentations is required. Minimum requirements are a Bachelor's degree in an appropriate area of specialization and two years of appropriate experience, or a high school diploma and six years of appropriate experience. Experience in the development of electronics for physics experiments is desired. Experience with VMEbus and field-programmable gate-arrays also is preferred. Salary \$40,000-56,000 commensurate with experience.

Applicants should send a resume to:

Prof. Darin Acosta, Department of Physics, University of Florida, P.O. Box 118440, Gainesville, Florida 32611, USA. Enquiries may be sent by e-mail to: acosta@phys.ufl.edu.

Applications will be considered until the position is filled.

If accommodation is needed to apply for this position, please call (+1) 352-392-4621 or TDD (+1) 352-392-7734, and refer to job positions, #607880 and #804790.

AA/EAA/EEO.

ISAAC NEWTON GROUP OF TELESCOPES ASTRONOMY RESEARCH FELLOW LA PALMA, CANARY ISLANDS



The UK Particle Physics and Astronomy Research Council (PPARC) is funding a Postdoctoral Research Fellowship at the Isaac Newton Group of Telescopes, La Palma, tenable for up to three years. The position will be available from 1 June 1999.

The successful candidate will be expected to spend up to half of their time on operational activities of the Observatory, such as supporting visiting astronomers or taking responsibility for an instrument. For the balance of his/her time, they will be free to conduct their own research programme. No specific area of astronomy is excluded from consideration, although an interest in wide field astronomy (either imaging or spectroscopy) or adaptive optics is essential. It is expected that applicants will be able to demonstrate the ability to compete successfully for time on major astronomical facilities.

The Fellowship will be at Band 4 (ex-HSO) with a salary range of £17,530 to £26,732, or Band 3 (ex-SSO) with a pay range of £21,913 to £33,840, depending on age and experience. Appointment would normally be to the lower end of the range, with pay progression linked to performance. In addition, the successful candidate will be paid overseas allowances and be provided with free, furnished accommodation for him/her and their dependants. There is also a relocation package available.

QUALIFICATIONS

Applicants must have submitted their PhD thesis before taking up this post. Additionally, for consideration for appointment at Band 3, applicants must have had postdoctoral work experience in an appropriate research or development environment. Candidates must also be able to demonstrate the ability to compete successfully for observing time on international facilities and have effective communication skills both orally and in writing.

Applicants should include a curriculum vitae, list of publications, a statement of proposed research programmes, and the names and addresses of three referees familiar with the applicants work.

Further information about this post can be obtained from the ING's Head of Astronomy, Dr Danny Lennon on 00 34 922 425441 or djl@ing.iac.es or from the personnel contact, Les Edwins on 00 34 922 425418 or lie@ing.iac.es

Closing date for applications is 1 April 1999.



UNIVERSITY OF OXFORD

in association with Magdalen College or St Hilda's College

UNIVERSITY LECTURERSHIP IN EXPERIMENTAL PARTICLE PHYSICS

Applications are invited for the above post, tenable from 1 October 1999. Oxford University has a wide ranging research programme in particle physics and particle astrophysics. We are involved in preparations for the MINOS, LHCb, and ATLAS experiments, while continuing participation in ZEUS, DELPHI, and CDF. The particle astrophysics activities include the ANTARES neutrino telescope, the SNO solar neutrino experiment, the CRESST dark matter search and further development of cryogenic detectors for dark matter searches and other applications such as x-ray astronomy. The appointee would be expected to participate in the future development of this programme.

The University salary will be according to age on the scale £16,655 to £31,010 per annum. The successful candidate may be offered a tutorial fellowship by either Magdalen College or St Hilda's College under arrangements described in the further particulars, in which case the combined university and college salary would be according to age on a scale up to £37,113 per annum. Additional college allowances may be available.

Further particulars of the duties and emoluments of both the university and college posts may be obtained from Mrs. Sue Geddes, Nuclear and Astrophysics Laboratory, Keble Road, Oxford OX1 3RH, UK, (email s.geddes@physics.ox.ac.uk). Applications including a statement of research interests and teaching experience, curriculum vitae, a list of up to ten major publications, and the names of three referees (not more than two from the same institution) should be mailed to the above address to arrive no later than 15 April 1999. The referees should be asked to send letters of reference directly to the same address to arrive by the closing date. It is expected that short-listed candidates will be interviewed in Oxford 1-2 months after the closing date. Applicants are asked to provide an e-mail address, fax, or telephone number where they can be contacted.

The University of Oxford is an equal opportunity employer.

SCIENTIST/ENGINEER

Brookhaven National Laboratory, under contract with the U.S. Department of Energy, is a multi-disciplinary laboratory engaged in a diverse program of basic and applied research.

Our National Synchrotron Light Source Department presently has an opportunity available as X-ray Ring Manager. Responsibilities include implementing improvements and upgrades in the operation and performance of the ring and playing a leading role in the daily operational aspects of the facility. Experience in the development and utilization of accelerator hardware and diagnostic systems, as well as demonstrated accomplishment in accelerator technology are required. The ability to communicate effectively with Department staff and users, and to manage scientific and technical activities is essential. Under the direction of Dr. Richard Heese.

For consideration, please forward your CV and three letters of reference, indicating position #MK7836, to: M. Kipperman, Brookhaven National Laboratory, Bldg. 185, PO Box 5000, Upton, NY 11973-5000. Visit our website for more information about BNL. We are an equal opportunity employer committed to workforce diversity.

**BROOKHAVEN
NATIONAL LABORATORY**
BROOKHAVEN SCIENCE ASSOCIATES
www.bnl.gov

Oak Ridge National Laboratory

Pre-Operations Manager for the Spallation Neutron Source

Oak Ridge National Laboratory (ORNL) invites applications for Pre-Operations Manager for the Spallation Neutron Source (SNS) project. The SNS is a next-generation accelerator-based, spallation neutron source for the Department of Energy's (DOE) Office of Science. It is being built by a collaboration of five DOE National Laboratories led by ORNL. The SNS will consist of a 35-mA negative hydrogen ion source feeding a chain of linacs to form 1-ms pulses of 1-GeV protons at a 60-Hz rate. Pulses are compressed in a 220-m circumference accumulator ring, producing extracted pulses of 1- μ s duration on a liquid mercury target. The total beam power of 1-MW will produce fluxes of slow neutrons for material-science studies at least a factor of 5 higher than current spallation sources. The SNS is an approved construction project with Line Item funding starting in FY99, and a scheduled completion date in 2006.

The Pre-Operations Manager will play a lead role in the planning and management of pre-operations, and will lead into a key management position in operations for the SNS facility once completed. Planning activities will include: development of staffing plan for pre-operations, including staff levels, skill requirements and hire-on schedule; and development of operating strategies for the SNS including the meeting of stringent reliability and availability requirements. Management activities will include: management of the pre-operations budget of approximately \$90M over the 7-year life of the project; development of work-packages for pre-operations staff; employee selection, development and supervision of the pre-operations staff, that will grow to an eventual operations staff of approximately 250 FTEs including personnel assigned both to on-site and off-site positions during the construction phases of the project. Additionally, will participate; with Project Office staff and management from the partner laboratories, in planning and management of integration of technical components with conventional facilities including installation, systems testing, commissioning, and operation of technical systems. Will manage preparations for and conduct of Readiness Reviews as appropriate prior to commissioning of technical elements.

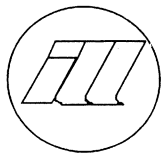
Successful candidates must have an advanced degree, or equivalent, in engineering or physical sciences, with proven experience in management of operations of a complex research facility. Experience in identifying and recruiting highly qualified technical and technical support staff required. Familiarity with management of and operational requirements for large accelerator facilities preferred. Demonstrated success in developing and executing operations plans for a multi-user research facility desired. Strong written and oral communication skills and the desire to work as a member of the SNS management team required.

Qualified candidates should submit a curriculum vitae with a list of three or more references to:
Selection Committee, Attn: Dr. Jose Alonso, Oak Ridge National Laboratory, P.O. Box 2009, Dept CERN, Oak Ridge, TN 37831-8218, or e-mail to AlonsoJR@ORNL.gov.

ORNL, a multipurpose research facility managed by Lockheed Martin Energy Research Corp. for the U.S. Department of Energy, is an equal opportunity employer committed to building and maintaining a diverse work force.

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POSTES À POURVOIR SCIENTIFIQUES



L'Institut Laue-Langevin (ILL) est un institut international de recherche fondamentale financé par la France, l'Allemagne et le Royaume-Uni. Des accords de collaboration scientifique existent également avec l'Autriche, l'Espagne, l'Italie, la Suisse, la République tchèque et la Russie.

L'Institut exploite la source de neutrons la plus puissante au monde, un réacteur de 58 MW, totalement remis à neuf en 1995.

Le réacteur est à la base d'un programme de recherche dans des domaines très variés. Il alimente un grand nombre d'instruments qui sont mis à la disposition des scientifiques des pays membres.

Les postes, mis à disposition pour une durée déterminée, représentent une excellente opportunité pour de jeunes chercheurs de niveau post-doctoral de développer leurs connaissances, d'élargir leur expérience et de collaborer avec des scientifiques de haut niveau en provenance de nombreux pays. Les candidatures de scientifiques plus expérimentés pouvant obtenir un détachement de leur institut d'origine seront également prises en compte.

Parallèlement à la conduite de leur propre programme de recherche, les candidats retenus seront chargés d'assister les chercheurs en visite à l'ILL dans leurs expériences et auront en charge le fonctionnement et l'amélioration des instruments correspondants.

Deux postes sont à pourvoir dans le **Groupe Diffraction**. Ils s'adressent à des chercheurs possédant une expérience post-doctorale de 1 ou 2 années.

1) Diffraction de neutrons polarisés (99/02)

Le candidat retenu travaillera en tant que second responsable d'instrument sur le diffractomètre à neutrons polarisés D3 (<http://www.ill.fr/YellowBook/D3>). Il sera intégré dans une équipe dynamique qui se trouve à l'avant-garde dans le développement de nouvelles techniques ouvrant de nouvelles opportunités scientifiques. Les candidats doivent être d'excellents physiciens, fortement motivés. Une certaine expérience des neutrons polarisés serait un avantage.

2) Diffraction de monocristaux, de poudre ou de liquides (99/03)

Le poste s'adresse à un scientifique spécialisé dans un de ces trois domaines de recherche. Les candidats doivent pouvoir proposer une ou plusieurs applications de la diffusion des neutrons pour la détermination structurale. Il participera ainsi à une stratégie de développement dans certains domaines complémentaires à ceux existant déjà à l'ILL. Un intérêt pour l'instrumentation et une bonne connaissance et expérience de l'informatique sont nécessaires.

De plus amples informations peuvent être obtenues en contactant le Dr. A.W. Hewat, tél. (33) 476 20 72 13 (e-mail: hewat@ill.fr) ou via le World Wide Web (<http://www.ill.fr>).

Les candidats retenus se verront proposer un contrat à durée déterminée qui ne pourra en tout état de cause pas excéder cinq (5) années. En plus d'un salaire intéressant, ils bénéficieront éventuellement de certains avantages sociaux (remboursement des frais de déménagement, prime d'installation, etc.).

Les candidatures, accompagnées d'un curriculum vitae, d'une liste de publications, ainsi que du nom de deux personnes de référence, sont à adresser avant le **31/03/1999**, sous la référence du poste correspondant, à

M. le Directeur Adjoint (Division Science), INSTITUT LAUE-LANGEVIN, B.P. 156, 38042 Grenoble Cedex 9. France
<http://www.ill.fr>

UNIVERSITY of GLASGOW

Department of Physics and Astronomy

RESEARCH ASSOCIATES IN PARTICLE PHYSICS

£15,735 - £23,651

Two openings are available from summer/autumn 1999, initially for up to two years, on the ZEUS and ATLAS experiments. In ZEUS the Glasgow group has made major contributions to the analysis of deep inelastic scattering and hard photoproduction. For ATLAS we are constructing part of the semiconductor tracker system, using our in-house facilities and expertise. We are looking for outstanding applicants with experience in experimental particle physics analysis or in related technology and who hold, or soon will have, a PhD. Both positions will involve working overseas.

Applications for either post, including CV, publications list, and the names and addresses of two referees, should be sent by

16 April 1999 to Professor D H Saxon, Kelvin Building, University of Glasgow, Glasgow G12 8QQ, Scotland from whom further particulars are available.

Telephone 0141 330 4673,

E-mail d.saxon@physics.gla.ac.uk

The University is committed to equality of opportunity in employment.

The University of Glasgow is an exempt charity dedicated to teaching and research.



Postdoctoral Research Position in Relativistic Heavy Ion Physics at the University of Heidelberg

The relativistic heavy ion group is searching for applicants with a strong interest in high speed/high bandwidth data acquisition systems. A new data acquisition system is part of a major upgrade of the CERES/NA45 experiment at the CERN SPS. In the future, the group will be increasingly involved in setting up two major detector components for the heavy ion experiment ALICE at CERN.

The applicant should have some experience with data acquisition systems, both on the hardware and software side, and should have a strong interest in working in an object-oriented environment (C++, and modern HEP computing packages). In addition to the contributions to the data acquisition system, the successful applicant is expected to play an active role in the physics program of CERES.

The position (BAT2a) is initially for 3 years, renewable up to 5 years. Applications, including vitae, list of publications and names for references should be addressed to:

Prof. Johanna Stachel, Physikalisches Institut, Universität Heidelberg, Philosophenweg 12, D-69120 Heidelberg, Germany Tel: +49-6221-549224, e-mail: stachel@ceres1.uni-heidelberg.de

University of California, San Diego
Department of Chemistry & Biochemistry (0359)

POSITION IN X-RAY PROTEIN CRYSTALLOGRAPHY USING PIXLE DETECTORS

Position open for a Postdoctoral Fellow or Assistant Project Scientist (salary range \$30K - \$65K) to participate in the design and commissioning of a Digital Pixel Array Detector for X-ray Protein Crystallography. This project is in the forefront of Protein Crystallography which plays an important role in Biotechnology (especially in Rational Drugs Design). Demonstrated ability in the design and integration of particle detector hardware required. Must know how to design and test complex solid state electronic circuitry. Should be familiar with data acquisition architecture including CME/VXI/CAMAC. Familiarity with CHDL/HDL, PAL design and ASIC testing preferred. Send CV and the addresses of 3 reference to Prof. Nguyen-huu Xuong, Dept of Chemistry & Biochemistry (0359), U.C.S.D., 9500 Gilman Drive, La Jolla, CA 92093-0359. Tel: (619) 534-2501; Fax: (619) 534-7042; Email: nxuong@ucsd.edu.

The deadline for application is May 5, 1999, but until the position is filled all applications receive will be assured full consideration.

The University of California is an equal opportunity/affirmative action employer.

Weill Medical College, Cornell University

Research fellow positions in magnetic resonance imaging are open at Cornell MR research group. Basic knowledge of physics, digital electronics or signal processing, and computer language C is required. The positions are expected to develop new imaging methods on GE MR scanners and collaborate with clinicians to evaluate your methods on volunteers and patients.

Our work is focused on developing innovative techniques for imaging blood flow in the heart and brain, and applying these techniques in diagnosing cardiovascular diseases, the No. 1 killer in US. The major challenge for imaging the heart is motion, and we are developing a navigator-based "auto focusing" approach to minimize motion effects. The major challenge to imaging function of the brain and other organs is the underlying biophysics mechanism, and we are developing quantitative models and corresponding acquisition strategies to map out pathophysiology.

Candidates should submit CV and references to the following contact

Yi Wang, PhD.

Assistant Professor of Physics, Director of MR Research, Department of Radiology,
Weill Medical College, Cornell University, 1300 York Avenue, New York, NY 10021
212.746.3853 (tel), 212.746.8046 (fax)
yiwang@mail.med.cornell.edu <http://mri.med.cornell.edu/~wang>

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POST DOCTORAL POSITION IN EXPERIMENTAL PARTICLE PHYSICS

Rutherford Appleton Laboratory, University College London



Applications are invited for a post doctoral position in experimental particle physics to be jointly supported by CLRC and University College London. The successful applicant will be based at RAL for the initial portion of the 4 year tenure of this post. It is expected that the person appointed will work on the MINOS experiment, the long baseline neutrino oscillation search experiment recently approved at Fermi National Accelerator Laboratory. The successful applicant will be expected to contribute to the construction of the detector and to the physics analysis, first data being expected in the year 2002.

Applicants should have a Ph.D. in particle physics, or have equivalent experience.

Further information can be obtained from Peter Litchfield (e-mail P.J.Litchfield@rl.ac.uk.) More information about the RAL Particle Physics Department can be obtained from: <http://hepwww.rl.ac.uk>.

The salary range is between £14,140 and £26,600 and the starting salary is dependent on experience. Progression within the salary band is dependent on performance. A non-contributory pension scheme and a generous leave allowance are also offered.

Application forms can be obtained from: Recruitment Office, Personnel Division, Rutherford Appleton Laboratory, Chilton, Didcot, Oxfordshire, OX11 0QX, UK. Telephone (44) 1235 445435 (answerphone) quoting reference VN1770/99. More information about CLRC is available from CCLRC's World Wide Web pages at <http://www.cclrc.ac.uk>

All applications must be returned by 31 March 1999.

The CLRC is committed to Equal Opportunities and to achieving the Investors in People standard. A no smoking policy is in operation.



COUNCIL FOR THE CENTRAL LABORATORY OF
THE RESEARCH COUNCILS



UNIVERSITY OF FLORIDA

Postdoctoral Position

The Department of Physics at the University of Florida has an immediate opening for a postdoctoral research position. The position is affiliated with the Hadron Collider Group strongly engaged in two experiments: CMS (endcap muon chambers, level-1 muon trigger) and CDF (CDF II luminosity monitor, physics analysis). More detailed information on the research of the group is available at <http://www.phys.ufl.edu/hee/hee.html>.

The University of Florida is a site for final assembly and testing of CMS muon chambers and the successful candidate will be in charge of this task.

The CMS endcap muon system is based on 360 large cathode strip chambers with state-of-the-art analog and digital electronic readout.

In addition, the opportunity of being involved in CDF data analysis is always open. To match these tasks, applicants should have adequate hardware experience (design, construction, or commissioning of detectors, good knowledge of front-end and/or DAQ electronics) and data analysis skills.

Candidates should send a curriculum vitae and three letters of recommendation to: Prof. Andrey Korytov, Department of Physics, University of Florida, P.O. Box 118440, Gainesville, FL 32611, USA. Enquiries may be sent by e-mail to: korytov@phys.ufl.edu. Applications will be considered immediately and until the position is filled.