

RECRUITMENT

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**DEUTSCHES ELEKTRONEN-
SYNCHROTRON DESY**

The Theory Group of DESY Hamburg invites applications for a permanent position which becomes available in the year 2000:

DESY Staff Position in Theoretical Particle Physics

Applicants should have experience in lattice gauge field theories. The salary follows the BAT contract rules of the Federal Republic of Germany. DESY especially encourages women to apply.

Handicapped applicants will be given preference in case of equal qualification.

Interested theorists are asked to send their application, including the List of Publications and the Curriculum Vitae, to DESY until September 30, 2000 (Code-No. 43/00).

**Deutsches Elektronen-Synchrotron DESY
Notkestraße 85, D-22607 Hamburg/Germany**

Additional information may be obtained from Prof. P.M. Zerwas, tel. 040.8998.2416/2413 or via e-mail peter.zerwas@desy.de.



**DEUTSCHES ELEKTRONEN-
SYNCHROTRON DESY**

The Theory Group of DESY Hamburg invites applications for two positions which become available in the year 2000:

DESY Staff Position in Theoretical Particle Physics and DESY Junior Staff Position in Theoretical Particle Physics

Applicants should have experience in areas of physics beyond the Standard Model. These staff positions are permanent (Code-No. 45/00) and limited to three years (Code-No. 44/00) with possible extension, respectively. Salaries follow the BAT contract rules of the Federal Republic of Germany. DESY especially encourages women to apply.

Handicapped applicants will be given preference in case of equal qualification.

Interested theorists are asked to send their application, including the List of Publications and the Curriculum Vitae, to DESY until September 30, 2000.

**Deutsches Elektronen-Synchrotron DESY
Notkestraße 85, D-22607 Hamburg/Germany**

Additional information may be obtained from Prof. P.M. Zerwas, tel. 040.8998.2416/2413 or via e-mail peter.zerwas@desy.de.

TEXAS A&M UNIVERSITY

POSTDOCTORAL POSITION IN EXPERIMENTAL HIGH ENERGY PHYSICS

The experimental high energy physics group at Texas A&M University has a postdoctoral position available starting in fall 2000 to work on the CDF experiment at Fermilab. Data taking with a fully commissioned detector is expected to begin in March 2001. The Texas A&M University responsibilities on CDF include commissioning of the Silicon Vertex Detector (SVX-II) data acquisition system and development of muon reconstruction and tau identification code in C++ for Run II. In addition, our group leads physics analyses searching for Supersymmetry. Candidates must possess a Ph.D. in particle Physics and have a demonstrated ability pertinent to the above activities. Salary will be commensurate with the candidate's experience.

Applications (resume, list of publications) and three letters of recommendation should be sent via e-mail (preferably as a post-script file) to kamon@physics.tamu.edu, followed by a paper copy Dr. Teruki Kamon, Department of Physics, Texas A&M University, College Station, TX 77843-4242. The deadline for a Fall 2000 appointment is July 31, 2000.

Texas A&M University is an Affirmative Action/Equal Opportunity Employer, committed to excellence through diversity. Texas A&M University particularly invites applications from minorities, women, veterans and persons with disabilities.

UNIVERSITY of GLASGOW

DEPARTMENT OF PHYSICS AND ASTRONOMY

RESEARCH ASSOCIATES IN PARTICLE PHYSICS

£16,286 - £24,479

Two new positions are available, initially from Oct 1 2000 for up to two years with the possibility of extension. We are looking for outstanding applicants with experience in Experimental Particle Physics who have, or are about to obtain, a PhD. The posts are based in Glasgow but will involve periods of work in Geneva and at RAL for the LHCb post.

The first is on the ATLAS experiment preparations for physics at the Large Hadron Collider. The Glasgow group is involved in forward semiconductor tracker silicon module construction and testing, and in establishing advanced computing resource requirements and simulation studies in preparation for physics analysis. The second position is to work with the Glasgow group on the LHCb experiment. We have made major contributions to the Research and Development of particle identification using the RICH detector. We plan a continuing programme of physics simulation, software development together with photon detector development and implementing the mechanics and alignment of the upstream RICH in LHCb.

For further particulars see our website at <http://ppewww.ph.gla.ac.uk/rafpds.html> or E-mail: d.saxon@physics.gla.ac.uk Applications, including CV, publications list, and the names and addresses of two referees, should be sent by 27 July 2000, to Prof. D H Saxon, Kelvin Building, University of Glasgow, Glasgow G12 8QQ, Scotland.

*The University is committed to equality of opportunity in employment.
The University of Glasgow is an exempt charity dedicated to teaching and research.*

**UNIVERSITY OF COPENHAGEN
NIELS BOHR INSTITUTE FOR
ASTRONOMY, PHYSICS, AND GEOPHYSICS**

Postdoctoral position in Experimental Particle Physics

A postdoctoral position is available from October 1, 2000 with the Experimental Particle Physics group at the Niels Bohr Institute, University of Copenhagen. The position is for two years with a possibility of prolongation, however, not exceeding five years.

The particle physics group is located at the Niels Bohr Institute, and its experiments ALEPH and ATLAS are performed at CERN and HERA-B at DESY.

It is expected that the appointed candidate will participate in the HERA-B activities. More specific she/he should contribute to the physics analysis and the group's second level trigger involvement. The position also demands participation in the university teaching program. The candidate will be based in Copenhagen.

Salary is set by agreement between the Ministry of Finance and AC (The Danish Confederation of Professional Associations). The annual salary depends on seniority, and the scale ends at a yearly salary of DKK 313.808 after contributions to the pension scheme and including a seniority independent yearly increment of DKK 39.746.

Deadline for applications is August 28, 2000, at noon.

Further information can be obtained from Professor Jørn Dines Hansen (dines@nbi.dk). If you consider applying for the position, please read the full text of the advertisement on the Internet address <http://www.ku.dk/led/stillinger/>.

Applications should be sent to:

**Professor Jørn Dines Hansen
The Niels Bohr Institute
Blegdamsvej 17, DK-2100 Copenhagen
Denmark.**

**EXPERIMENTAL PARTICLE
OR NUCLEAR PHYSICS
Argonne National Laboratory**

Resumes are invited for three experimental postdoctoral positions in the HEP Division at Argonne National Laboratory to start in summer or fall 2000. Well-qualified candidates will also be considered for higher level appointments. Argonne's projects in experimental physics include CDF, ZEUS, Soudan 2, STAR, MINOS and ATLAS. Resumes are especially sought for work on the STAR detector at RHIC and on the MINOS detector.

For STAR, the major research focus will be the determination of the gluon spin distribution in the proton within the RHIC spin program. Argonne physicists are collaborating on the construction of the STAR endcap electromagnetic calorimeter, which will play a vital role in measuring the gluon spin. Argonne will focus on the construction and testing of a scintillator strip shower maximum detector. Participation in ongoing experimental programs involving spin is also expected. MINOS will make the definitive exploration of neutrino oscillations and mass in the region suggested by atmospheric neutrino observations. Argonne has major responsibilities for the construction of scintillator modules and readout electronics, as well as planning for the physics exploitation of the detector. The experiment will begin taking data in 2003. Work will be centered primarily at Argonne, but with visits to FNAL and the Soudan Mine.

Candidates should have obtained a Ph.D. in experimental nuclear or high energy physics. Applicants are requested to send a list of publications, curriculum vitae, and the names of 4 references to: **Susan Walker, Box HEP-210675-40, Employment and Placement, Argonne National Laboratory, 9700 S. Cass Avenue, Argonne, IL 60439. Fax: 630-252-9388. TDD: 630-252-7722.**

Argonne is an Equal Opportunity/Affirmative Action Employer.

For additional information or to submit your resume, please visit our website at <http://www.hr.anl.gov/employment.htm>.



CREATIVE ELECTRONIC SYSTEMS

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CES - Creative Electronic Systems is situated in Geneva Switzerland. We are a supplier of boards and software components for DAQs in Physics, as well as for aerospace data acquisition systems and telecommunications ATM network controllers and partners of some of the world's leading companies.

We have fast-growing requirements, and we are looking for enthusiastic, efficient engineers team working to integrate programs at the leading-edge of technology and innovation.

Physicists or engineers working in the Physics community are welcome to apply to the following:

Career Opportunities at CES

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- Real-Time Operating Systems (VxWorks or LynxOS or ChorusOS)
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- Software design at high and low level
- Programming in C/C++

One Software Architect

To be a team leader for long-term LINUX port to CES computing platforms.

One Software Engineer

To generate and maintain automated test programs.

We require good knowledge of:

- LINUX, TCP/IP
- TCL/TK
- PERL

One Telecom Engineer

For the development of platforms for the third generation wireless systems.

We require good knowledge of:

- ATM, TCP/IP, Ethernet protocols
- UNIX and Real-Time Operating Systems such as VxWorks, LynxOS or ChorusOS
- C, C++, Assembler
- Familiarity with PowerPC, PCI hardware design is a plus

Swiss or part of the European Community, please send your resume to:

**Direction du Personnel
CES - Creative Electronic Systems SA**

70, route du Pont-Butin
1213 Petit-Lancy 1, Switzerland

Tel: +41.22.879.51.00
E-mail: ces@ces.ch

ASSOCIATE DIRECTOR

(Position #AR0001)

Accelerator Division Associate Director, Jefferson Lab

The Thomas Jefferson National Accelerator Facility (Jefferson Lab) is seeking qualified candidates for the position of Accelerator Division Associate Director. The successful candidate must have broad expertise in a relevant scientific or technological discipline, and have made internationally recognized contributions to their field. Candidates must furthermore have demonstrated managerial skills suited to leading a world class scientific organization.

Jefferson Lab, located in Newport News, Virginia, is a Department of Energy laboratory operated by the Southeastern Universities Research Association. Jefferson Lab operates a major experimental facility, the Continuous Electron Beam Accelerator (CEBAF), for the medium energy nuclear physics community. This 6 GeV high duty cycle (cw) accelerator is based on a large-scale application of superconducting rf technology. The CEBAF experimental program, involving over 1600 users worldwide, began in 1994. Jefferson Lab designed and now operates the world's highest average power (kilowatt-level) tunable, infrared free electron laser (FEL) as a user facility for the scientific, industrial and defense communities. The Laboratory is currently undertaking the design and delivery of the superconducting linac and cryogenic systems for the Spallation Neutron Source being built at Oak Ridge National Laboratory.

The Accelerator Division Associate Director, who leads a scientific and technical staff of over 300 persons, is responsible for the operation and upgrades of both CEBAF and the FEL. Design activities for upgrading CEBAF to 12 GeV, and significantly extending the FEL power and wavelength range are presently underway. The responsibilities of the Accelerator Division Associate Director include promoting Jefferson Lab within the broader scientific community; developing productive collaborations with other institutions; and maintaining an appropriate balance between ongoing activities and new initiatives to assure that the laboratory remains at the forefront of its core technologies. Serving on the Director's Council, the Associate Director is an integral member of the laboratory's senior management, responsible for establishing the laboratory's future programs and direction.

Minimum qualifications include a PhD or equivalent in a relevant scientific/technological field and extensive applicable experience, including substantial managerial experience in a large organization.

Our search will continue until an appropriate candidate is selected. For prompt consideration, applications should be sent by October 1, 2000 to: Jefferson Lab, Attn: Employment Manager, 12000 Jefferson Ave., Newport News, VA 23606. For further information on this position, applicants may contact Dr. Charles Sinclair, Search Committee Chair, at 757-269-7679 or e-mail sinclair@jlab.org.

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Thomas Jefferson National Accelerator Facility



Universität Hamburg

Fachbereich Physik, II. Institut für Experimentalphysik

Professorship (C4) in Physics, Kennziffer 1696/4

The Physics Department at the University of Hamburg invites applications for the tenure position of a Full Professor (C4 Professur)

Björn Wiik Professorship in Accelerator Physics

named in honour of the late distinguished particle and accelerator physicist B. H. Wiik. We seek candidates with a strong commitment to both research and teaching and with an international reputation in the physics of high energy particle accelerators and/or synchrotron radiation sources. The successful candidate is expected to assume a leading role in the research and development related to the proposed superconducting linear electron-positron collider TESLA and the integrated X ray Free Electron Laser as well as in the R&D work at the TESLA Test Facility and the associated vacuum-ultraviolet FEL facility. A close cooperation with the accelerator physics group at DESY is considered essential. The present tradition at Hamburg to deeply involve graduate (diploma and PhD) students in the research activities related to these ambitious projects shall be continued and expanded. Applications from highly qualified persons of German or non-German nationality are equally welcome.

The teaching obligations at Hamburg University amount to 8 semester week hours and comprise teaching of undergraduate and graduate students as well as supervision of diploma thesis work. In the framework of opening the university to foreign students, the lectures and exercises can be held in English, especially for students in higher semesters. Good knowledge of the German language is desirable but not a condition.

Candidates should submit a letter of application outlining their qualifications and interests with a resume and publications list. The material submitted should provide evidence of the ability to carry out an independent research program and of teaching skills.

The University of Hamburg is an equal opportunity/affirmative action employer and welcomes applications from qualified women.

In case of equal qualifications preference will be given to handicapped persons.

Applications should be sent by **August 30, 2000** to **Präsident der Universität Hamburg, Referat Personal & Organisation -332.11/12-, Kennziffer 1696/4, Moorweidenstrasse 18, D-20148 Hamburg.**

E-mail information: peter.schmueser@desy.de

TOPIK: WISSENSCHAFT

LABORATOIRE DE L'ACCÉLÉRATEUR LINÉAIRE Accelerator Physicist/RF Engineer

We have an opening for an accelerator physicist/RF engineer to join our R+D activities on linear colliders. Our group is currently involved in international collaborations with DESY (TESLA) and CERN (CLIC). The successful candidate will be expected to contribute to these programmes which involve the construction of accelerator components.

In addition to a sound knowledge of beam theory and experience with computer simulation codes, the successful candidate should be familiar with accelerator related technologies. In particular, previous experience with radio-frequency cavities (room temperature and/or superconducting), microwave measurement techniques and beam instrumentation is required.

The candidate will be expected to assume the responsibility of project leadership in the construction of accelerators or accelerator components.

Candidates should have several years of experience in the field of accelerators and should have obtained an Engineering Diploma (level Grande Ecole) or a Ph.D. in physics or electrical engineering. A good command of the English language is essential. Salary will be dependent on experience. Recruitment will initially be on a fixed-term basis.

Please write with CV to: Service du Personnel, Laboratoire de l'Accélérateur Linéaire, B.P. 34, 91898 Orsay cedex, France.

Informal enquiries can be addressed to Dr. T. Garvey
(Tel: 33 01 64 46 89 61; e-mail garvey@lal.in2p3.fr)

Laboratori Nazionali di Frascati dell'INFN European Union "Improving" Programme Marie Curie Individual Fellowships

We invite applications for postdoctoral fellowships "category 30" (one to two years) in theoretical, experimental physics (high energy physics, astroparticle physics, nuclear physics, synchrotron radiation and gravitational wave detection), and accelerator physics at the Laboratori Nazionali di Frascati of INFN (Istituto Nazionale di Fisica Nucleare).

The 1 GeV e+e- machine DAPHNE (Phi factory) to study CP violation and hypernuclear physics is currently under commissioning.

More detailed information can be obtained from: A. Antonelli, tel. +39 06 9403 2787, e-mail: antonella.antonelli@lnf.infn.it and from our web site: www.lnf.infn.it/lnfadmin/job/Euf.html.

Applicants must be nationals of a European Union member state (excluding Italy) or an associated state, or have been residing in the EU for at least the last five years, age under 35 and have a PhD degree (or equivalent level of education) or 4 years' full-time research activities at post-graduate level. Furthermore the candidate should not have carried out research activities in Italy for more than 12 months in the last two years. More information can be obtained visiting the EU web site www.cordis.lu/improving.

Fellows will be employed under the EU's general conditions governing Marie Curie Individual fellowships and will receive an allowance in Euro per month to cover subsistence and mobility expenses, tax and social security contributions and cost of attending conferences, travel expenses, etc... Total monthly subsistence allowance will be of about 3800 Euro (plus a mobility allowance of 400 Euro per month).

Candidates should send a letter of application (where the activity of interest must be specified), a C.V. and two letters of recommendation, **by July 31st**, to:

Marie Curie Individual Fellowships, Dr.ssa A. Antonelli

LNF - INFN - Via E. Fermi 40 - 00044 - Frascati, Italy

Tel. +39 06 9403 2373 or 2787 - Fax +39 06 9403 2475

e-mail: antonella.antonelli@lnf.infn.it

Selected candidates will be asked to apply to the next round of EU selection which has the closing date of September 13th, 2000.



UNIVERSITY OF VICTORIA/TRIUMF

POSTDOCTORAL RESEARCH ASSOCIATE POSITIONS IN EXPERIMENTAL HIGH ENERGY PHYSICS

The University of Victoria and the TRIUMF Laboratory each have a vacancy for a Research Associate position in Experimental Particle Physics to work on analysis and software development for the OPAL and ATLAS experiments. The positions have a term of two years with a possible one year extension and are available immediately.

The High Energy Physics group at Victoria closely collaborates with the ATLAS group at the TRIUMF Laboratory designing, constructing and testing liquid argon hadronic calorimetry for the endcap region of the ATLAS detector. The successful candidates are expected to take a leading role in developing object oriented reconstruction software for hadronic calorimetry. The candidates are also expected to take an active interest in the test beam R&D program and physics simulations.

The TRIUMF Laboratory is responsible for the construction of one complete endcap hadronic calorimeter. The development of a software group at TRIUMF and Victoria to exploit the hardware is our highest priority. The University of Victoria is exploring the use of a LINUX cluster and a new IBM SP high performance computer to develop a Canadian centre for ATLAS analysis. Victoria is taking a leading role in developing an OO version of the test beam reconstruction software. The Victoria group is a member of the OPAL collaboration with active interests in triple gauge couplings and tau physics. Research Associates employed by Victoria will have the opportunity to contribute to OPAL physics analysis.

Candidates should indicate on their application which institute they would prefer to be employed by - the University of Victoria, Victoria BC, or TRIUMF, Vancouver, BC. The candidate will be located at the institute where they are employed.

Candidates should have a recent Ph.D. in particle physics and experience with UNIX and LINUX operating systems. Familiarity with the C++ programming language would be an asset. Further inquiries can be made to Prof. M. Lefebvre (lefebvre@uvic.ca), Dr. C. Oram (oram@triumf.ca) and Dr. R. Sobie (rsobie@uvic.ca).

Interested candidates should, prior to 31 August 2000, send a curriculum vitae and arrange for two letters of recommendation to be sent to:

Prof. Richard Keeler

Department of Physics and Astronomy, University of Victoria,
P.O. Box 3055 Stn CSC, Victoria, BC CANADA V8W 3P6

e-mail: rkeeler@uvic.ca

Telephone: (250) 721-6156

Fax: (250) 721-7752

Applications will be accepted after the deadline until the positions are filled. In accordance with Canadian immigration regulations, priority will be given to Canadian citizens and permanent residents. All qualified individuals are encouraged to apply.

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Computer/Information Systems

C++/DATABASE DEVELOPER

Argonne National Laboratory, one of the United States' premier research and development organizations, seeks a self-motivated team player to develop core software that will support data analysis for the ATLAS high energy physics experiment.

The analytical problem-solver must be proficient in C++ and UNIX. Candidates must also be familiar with object-oriented design patterns and with database systems. Solid written/verbal communication and interpersonal skills are needed, as well as insight into emerging technologies. Desirable skills include proficiency with other programing and scripting languages (Java, FORTRAN, Python).

Knowledge and skills for this position would be best acquired through a PhD in Computer Science, High Energy Physics, or Nuclear Physics or through a Master's or Bachelor's Degree in Computer Science with appropriate experience.

Argonne provides an excellent compensation/benefits package. For consideration, please send a detailed resume, salary history, and the names/addresses of four references to Susan Walker, Box HEP-210529-60, Employment and Placement, Argonne National Laboratory, 9700 S. Cass Avenue, Argonne, IL 60439. Fax: 630-252-9388. TDD: 630-252-7722. Argonne is an Equal Opportunity/Affirmative Action Employer.

For additional information, please refer to Argonne's Home Page on the internet <http://www.anl.gov/welcome.html>.



SYSTEMS & ENGINEERING OPPORTUNITIES

Synchrotron Radiation Facility Daresbury Laboratory, Warrington

Daresbury Laboratory is responsible for the operation and continuing development of the SRS national research facility in Cheshire which is guaranteed to operate for another 7 years. This facility provides state of the art experimental facilities for a large community of academic and industrial scientists exploiting the unique properties of light emitted from a 2 GeV electron storage ring. Scientists and engineers at Daresbury will also play a key role in the design of the new synchrotron facility to be constructed at Rutherford Appleton Laboratory, Oxfordshire. The new synchrotron project is a joint venture between the UK and French Government and the Wellcome Trust. The following systems and engineering opportunities exist at Daresbury to support the advanced accelerators, beamlines and experimental programmes on the SRS and to contribute to the design of the new synchrotron.

Electrical Engineering Group Leader : Reference VND023/00

You will take overall responsibility for safe and efficient electrical engineering and power converter operations on the SRS facility which includes three high energy electron accelerators driving an experimental facility of 12 beamlines and 30 experimental stations. As a Chartered Engineer with an honours degree in electrical engineering, and with a proven track record of achievement, you will have the experience and maturity to manage a substantial team of technical staff and the innovative ability to make a major contribution to the development of power converters for accelerator based research facilities. The starting salary will be between £30,000 and £38,000 depending on experience.

Electronics and Controls Group Positions

The following three positions are in the Electronics and Controls Group which provides design, development and operational support to the SRS and develops new projects. The SRS control system is currently undergoing a major development to replace the original controls based on three mini computers with a new system using PC clients and embedded servers. There are also ongoing developments in distributed control system design, digital control of power converters and signal processing of beam position detectors.

Controls Systems Engineer : Reference VND026/00

You will be working on the hardware and software design of embedded control systems in all parts of the accelerator and experimental complex. Some experience in system design and programming is essential although applications from recent graduates will be considered. Previous experience with some or all of OS9, Visual Basic, 'C', and Unix systems will be advantageous. The starting salary will be between £19,000 and £24,000 depending on experience.

Systems Manager : Reference VND027/00

Under the supervision of a Senior Systems Engineer, you will be responsible for the administration, maintenance and support of all the installed control system computers. This work will include provision of software solutions to specific applications problems and the management and development of databases used to record historical information on control system configuration and parameters. The starting salary will be between £19,000 and £24,000 depending on experience.

Software Engineer : Reference VND028/00

You will be working on major new codes to exploit modernisation of the integrated facility control system and the provision of new application packages to support the accelerator physics and operations team in maintaining the international competitiveness of the SRS. The starting salary will be between £19,000 and £24,000 depending on experience.

Further technical information on these positions is available from P.D.Quinn@dl.ac.uk (Electrical Engineering) and M.T.Heron@dl.ac.uk (Controls and Systems).

Progression within each salary range is dependent upon performance. A non-contributory pension scheme, flexible working hours and a generous leave allowance are also offered.

Application forms can be obtained from: Human Resources Division, Daresbury Laboratory, Daresbury, Warrington, Cheshire, WA4 4AD. Telephone (01925) 603864 or email recruit@dl.ac.uk, quoting the appropriate reference. More information about CLRC is available from CCLRC's World Wide Web pages at <http://www.clrc.ac.uk>

All applications must be returned by 21 July 2000

The Council for the Central Laboratory of the Research Councils (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

CERN COURIER SEPTEMBER RECRUITMENT DEADLINES

Booking deadline Friday 4 August

Artwork deadline Monday 7 August

Contact Andrew Hardie

Tel. +44 (0) 117 9301090 **Fax** +44 (0) 117 9301178

E-mail andrew.hardie@iopublishing.co.uk

Postdoctoral Physicist

The HyperCP Group of the Physics Division at the Lawrence Berkeley National Laboratory has a postdoctoral physicist position available. The primary goal of HyperCP is to study CP symmetry in strange-baryon decays. The Berkeley group played a significant role in wire chambers, readout electronics, data acquisition, and is currently focusing on data analysis that poses outstanding computing challenges due to the very large data samples and delicate analyses. The group is also involved in KamLAND, a long-baseline neutrino oscillation experiment in Japan that will begin data taking in 2001.

A Ph.D. in particle physics and demonstrated strong potential for outstanding achievement as an independent researcher. The primary responsibility of this position will be physics analysis on HyperCP as well as some level of participation on KamLAND.

This is a two-year term appointment with the possibility of renewal. Applications, including CV, list of publications, description of skills, and three letters of recommendation should be sent via e-mail to gensciemployment@lbl.gov or mail to Lawrence Berkeley National Laboratory, 1 Cyclotron Road, MS 50-4037, Berkeley, CA 94720. Please reference Job# PH/012282/JCERN. E-mail inquiries to KRPrintup@lbl.gov.

For more information, please visit our web site <http://cjo.lbl.gov/>. Berkeley Laboratory is an AA/EEO employer.



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New Source of Ultracold Neutrons at PSI

Your tasks

We will construct an intense pulsed source of ultracold neutrons using our high intensity proton beam stopping in a heavy element spallation target. This source will be used for a new precision experiment of the neutron electric dipole-moment (EDM). You will participate in the construction and test of the source and in the preparation and carrying-out of the EDM-experiment.

Your profile

You have a background of several years in experimental nuclear or particle physics, preferably with experience in fundamental neutron experiments and very low energy neutron beams/sources.

For further information please contact Dr. M. Daum, phone ++41 56 310 3668, e-mail: manfred.daum@psi.ch

Please send your application to: PAUL SCHERRER INSTITUT, Human Resources, ref.code 1412-01, CH-5232 Villigen PSI, Switzerland

Further job opportunities: www.psi.ch



INSTITUT LAUE-LANGEVIN

BP 156 - 38042 Grenoble Cédex 9 - France

<http://www.ill.fr>

The Institut Laue-Langevin (ILL) is an international research institute funded by France, Germany and the United Kingdom. Agreements on scientific collaboration have also been signed with Austria, Italy, Spain, Switzerland, the Czech Republic and Russia. The Institute operates the most powerful source of neutrons in the world, a 58MW reactor, which was completely refurbished in 1995. The reactor forms the basis for a programme of research covering a wide variety of fields, supplying neutrons to a broad range of instruments which are available to scientists from the member countries.

The ILL has openings for 2 RESEARCH SCIENTISTS

These positions represent an excellent opportunity for young postdoctoral scientist to develop their expertise, broaden their experience and interact with leading scientists from around the world. More experienced scientists on detachment may also be considered. The successful candidates will be highly motivated scientists having a PhD. They will be expected to carry out their own research programme, assist ILL users in conducting experiments and participate in the operation and development of particular instruments.

The vacancies exist in the following groups :

Ref. 00/27 : Time-of-Flight and High Resolution Group (TOF/HR)

Applicants should have a PhD in chemistry or physics. They must have an interest in instrumentation and have a sound practical knowledge of computing. The successful candidate will initially take joint charge of two very high resolution instruments, the back-scattering spectrometers IN10 and IN16.

Further information: Dr. A.J. Dianoux, Head of TOF/HR Group, tel: (33) 4.76.20.72.06; e-mail: dianoux@ill.fr Deadline for application: 31.08.2000.

Ref. 00/17 : Nuclear and Particle Physics Group (NPP)

At the Lohengrin spectrometer (PN1), a program was started to investigate very neutron rich nuclei produced in nuclear fission. Dedicated measurements comprise gamma ray spectroscopy of isotopes far from stability with the aim to determine ground state lifetimes, search for microsecond isomers and investigation of gamma and conversion electron transitions following beta decay. The successful candidate will share responsibility for the instrument PN1. He/she will participate in spectroscopic work on this instrument and collaborate in the project for measurements with the European MINIBALL set up. He/she will also join a project to design and build a dedicated germanium cluster array on the spectrometer.

Further information: Dr. H. Börner, Head of NPP Group : tel: (33) 4.76.20.73 94; e-mail: borner@ill.fr Deadline for application: 31.07.2000.

For these posts, the successful candidates will be offered fixed-term contract, the duration of which will under no circumstances exceed five (5) years. In addition to a competitive salary, certain benefits (reimbursement of removal expenses, adaptation allowance, etc.) may be offered.

Applications with curriculum vitae, list of publications and the names of two academic referees should be sent (quoting the appropriate reference) to the Head of the relevant Group.

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PARTICLE ACCELERATOR PHYSICISTS (TWO POSTS)

Daresbury Laboratory, Warrington

Opportunities exist for two physicists to join the small team who design, build and operate advanced high-energy particle accelerators, based at CLRC Daresbury Laboratory in North Cheshire.

At present the accelerator physics team supports the operation of the SRS, the UK national light source facility based on a 2 GeV electron storage ring, but it has in addition provided the design capability for feasibility studies on a more advanced replacement source that has now been funded. Recently support for the new UK initiative in accelerator research and development for electron linear colliders has also been initiated, intended to put the UK in a position to make a significant contribution to a future international high energy physics facility. You will be expected to make a major contribution in one of these new exciting areas. The comprehensive design phase of the new light source will commence shortly and you would be involved in a range of activities from particle beam dynamics through to component specification. Alternatively design work on advanced damping rings and collider simulation code development are possible, requiring close working with particle physicists and the various international design teams. As well as playing a major role in these activities you would also have the opportunity to participate practically in the ongoing support of the SRS.

We are looking for highly motivated scientists with an independent outlook, but who must be able to work in a team. You would be joining a laboratory with an international reputation to maintain, a challenge implying a determined commitment to work and a willingness to take on a variety of tasks, both experimental and theoretical. Previous accelerator experience, although welcome, is not essential, as full training in accelerator physics will be available. Career development opportunities will be available in this core professional activity of the CLRC.

You should have a good honours degree in physics or a closely related subject, or an equivalent qualification. Postdoctoral scientists are also encouraged to apply, as are final year undergraduates. A willingness to travel is essential and to participate in a large multinational collaboration is desirable.

Additional information is available from Mike Poole (m.w.poole@dl.ac.uk; (0)1925-603256) or Susan Smith (s.l.smith@dl.ac.uk; (0)1925-603260); also from <http://accelerator.dl.ac.uk/Ap/>

The salary ranges are between £14,850 and £21,850 and £18,620 and £26,600; salary on appointment is awarded according to relevant experience. A non-contributory pension scheme, flexible working hours and a generous leave allowance are also offered.

Application forms can be obtained from: Human Resources Division, Daresbury Laboratory, Daresbury, Warrington, Cheshire, WA4 4AD. Telephone (0)1925 603864 or email recruit@dl.ac.uk, quoting reference VND029/00. More information about CLRC is available from CCLRC's World Wide Web pages at <http://www.cclrc.ac.uk>

All application forms must be returned by 4th August 2000.

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

RESEARCH ASSOCIATE Experimental High Energy Physics

The Department of Physics at Stanford University is inviting applications for a postdoctoral research associate to participate in a long baseline neutrino experiment, MINOS, utilizing a beam from Fermilab and a detector at Soudan in northern Minnesota.

The MINOS experiment is designed to be sensitive to $\nu_\mu \rightarrow \nu_e$ and $\nu_\mu \rightarrow \nu_\tau$ oscillations down to $\sin^2 2\theta = 0.01$ and to Δm^2 values below 10^{-3} eV^2 . Thus the experiment will be able to cover the full Super-K suggested region of oscillation parameter space. The neutrino beam will be produced by the protons extracted from the Fermilab Main Injector, a recently constructed 120 GeV proton synchrotron. The far detector will be a multi-kiloton magnetic iron/scintillator spectrometer in the Soudan mine in Minnesota, some 730 km away. The existing Soudan 2 detector will also form part of the experimental apparatus. This experiment was endorsed in 1995 by HEPAP as an important element of the future US high energy physics program. This endorsement has been reaffirmed by several subsequent reviews. The project has been baselined in the fall of 1998, and the conventional construction is well underway both at Fermilab and at Soudan. The installation of the detector in the Soudan mine should start in the spring of 2001 and the data taking before the end of 2003.

It is anticipated that the majority of the successful applicant's time will be spent in residence at Stanford, working mainly on MINOS simulations and design and construction of the detectors and neutrino beam elements. It is expected that the successful applicant will spend some time at Soudan during the installation and commissioning phase of the experiment. The initial appointment will be for three years with the possibility of an extension.

Interested applicants are requested to send three letters of reference and a resumé to:

**Professor Stanley Wojcicki, Stanford University,
Physics Department, Stanford, CA 94305-4060**

The applications will be accepted until September 1, 2000 or until the position is filled.

Stanford University is an equal opportunity, affirmative action employer. We are especially interested in receiving applications from female and minority physicists.



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Post-Doctoral Fellowships for Non Italian Citizens in the following research areas:

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EXPERIMENTAL PHYSICS (N. 20)

The INFN Fellowship Programme 2000-2001 offers thirty positions for non Italian citizens for research activity in theoretical or experimental physics.

Fellowships are intended for young post-graduates not more than 35 years of age at the time of the deadline.

Each fellowship is granted for one year (which may start during the period from September to November 2001), and may be extended for a second year.

The annual gross salary is 42.000.000 Italian Lire, plus travel expenses for round trip transportation from the country home to the INFN Section or Laboratory. Lunch tickets are provided for work days.

Candidates should submit an application form and a statement of their research interests and arrange for three letters of reference.

Applications must be sent to INFN no later than **October 15, 2000**.

Candidates will be informed by the end of January 2001 about the decisions taken by INFN's committee.

The successful applicants may carry out their research activity in Italy, at any of the following Laboratories and Sections of INFN:

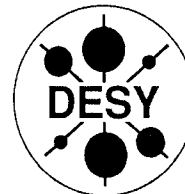
Laboratori Nazionali di Legnaro (Padova), Laboratori Nazionali del Gran Sasso (L'Aquila), Laboratori Nazionali del Sud (Catania) e Laboratori Nazionali di Frascati (Roma).

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Informations, requests for application forms, and applications should be addressed to Istituto Nazionale de Fisica Nucleare, Direzione Affari del Personale, Ufficio Borse di Studio - Casella Postale 56 - 00044 Frascati (Roma) Italia.

ISTITUTO NAZIONALE DI FISICA NUCLEARE
IL PRESIDENTE
(Prof. Enzo Iarocci)



Postdoc Position@NIC (DESY-Zeuthen)

The Group „Particle Physics“ of the John von Neumann Institute for Computing (NIC) at DESY-Zeuthen has an opening for a Postdoctoral Position (BAT IIa-O) in Theoretical Particle Physics.

The main interests of the NIC research group are in the non-perturbative aspects of quantum field theories, mainly Quantum-Chromodynamics on the lattice. The group has access to massively parallel supercomputers (APE, CRAY) and is involved in large scale numerical simulations. There is a close collaboration with the theory group at DESY-Zeuthen and the lattice gauge theory groups at the universities in Berlin.

The applicant should have a background in quantum field theory and have experience in lattice gauge theory, ideally also with numerical simulations. The successful candidate is expected to join the activities of the NIC research group and participate in the APE-project.

The position, starting 1.10.2000, is for two years with a possible extension. DESY welcomes in particular the application of qualified women. Handicapped applicants will be given preference to other applicants with the same qualifications. Candidates are invited to send their application including a curriculum vitae, list of publications as well as three letters of reference to

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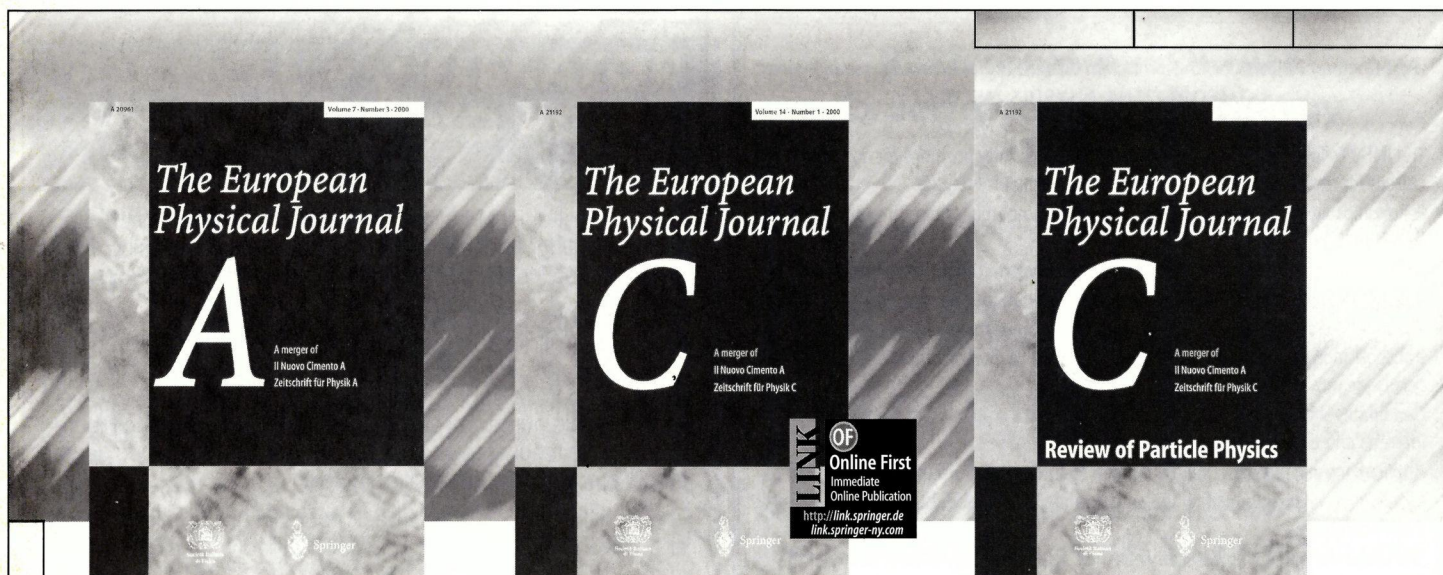
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by 31 July 2000. For further information please contact K. Jansen, e-mail Karl.Jansen@cern.ch, Tel.: 0041-22-767-2421.

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