

RECRUITMENT

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Duke University

Tenure-Track Faculty Position Experimental High Energy Physics.

The Duke University Department of Physics has an opening for a tenure-track Assistant Professor position in experimental high-energy physics. The Duke research program focuses primarily on the CDF and ATLAS experiments. The HEP group currently consists of four faculty, one research faculty, five-post-doctoral scientists, plus technical support staff and graduate students. Our activities include data analysis from the CDF experiment, preparations for the CDF detector upgrade, and design and construction of the transition radiation tracker for ATLAS at the LHC with eventual participation in the experiment. Applicants for this position should be capable of taking on major responsibilities in these experiments, and be committed to excellence in undergraduate and graduate teaching at Duke.

The position is available starting September 2000. Applications received by 15 January 2000 will be guaranteed full consideration. Please send a resume, research statement and list of publications and three letters of reference to:

High Energy Physics Search Committee, c/o Ms. Pat Hoyt, (hoyt@hep.phy.duke.edu), Physics Department, Box 90305, Duke University, Durham, NC, 27708-0305, USA.

Duke University is an affirmative action/equal opportunity educator and employer.

University of Massachusetts at Amherst FACULTY POSITION Experimental High Energy Physics

The Department of Physics invites applications to fill a tenure track position in experimental high energy physics to begin September 1, 2000. The hiring is anticipated to be at the assistant professor level, although an appointment at a higher level will be considered for an exceptionally qualified person.

The UMass HEP group (<http://www-unix.oit.umass.edu/~blaylock/hepex/>) currently participates in the SLAC experimental program, in particular, the physics programs of the SLD and BaBar experiments, as well as the planning stages for the Next Linear Collider.

An interest in the BaBar project for the near term future is desirable. The successful candidate is also expected to be an equal participant in determining the longer range future directions of the group. A Ph.D. in experimental high energy physics and appropriate postdoctoral experience are required.

Applicants should send a curriculum vita, along with a brief description of research and teaching interests, and should arrange to have three letters of recommendation sent to: **Chair of the HEP Search Committee, Department of Physics, 1126 Lederle Graduate Research Tower, University of Massachusetts, Amherst MA 01003.**

Evaluation of applications will begin on February 1, 2000 and continue until the position is filled.

The University of Massachusetts is an Affirmative Action/Equal Opportunity employer.

Women and minority candidates are encouraged to apply

RESEARCH SCIENTIST



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 58 MW reactor.

The Nuclear and Particle Physics Group is looking for a young research scientist who has completed his/her PhD and has gained some experience. The post concerns the high resolution gamma ray facility GAMS used in pure and applied nuclear spectroscopic studies. The successful candidate should have experience in one of the following areas: nuclear structure at low excitation energies, physics of particles and their fundamental interactions, precision measurements using optical interferometers. He/she will work in a group studying radiative decay following thermal neutron capture.

Fixed-term contract (five year) - Competitive salary, benefits (reimbursement of removal expenses, adaptation allowance, etc) - Further information can be obtained by contacting the head of the NPP group (Dr. H. Börner Tel: (33) 4.76.20.73.94; e-mail: borner@ill.fr) or via the World Wide Web (<http://www.ill.fr/nfp>)

An application with curriculum vitae, a list of publications and the names of two academic referees should be sent, quoting reference 99/20, no later than 15 December 1999 to:

The Associate Director (Science Division)
INSTITUT LAUE LANGEVIN, B.P. 156,
38042 Grenoble Cedex 9 -France



University of California, Santa Barbara Postdoctoral Position in High Energy Physics

The high energy physics group of the University of California at Santa Barbara has one postdoctoral position available for research with the BABAR collaborations on heavy quark physics. A Ph.D. in experimental particle physics is required, with evidence of experience in hardware development and/or data analysis.

Interested candidates should submit a letter of application, statement of research interests, vita, and a list of publications to: **Professor Campagnari, Department of Physics, University of California, Santa Barbara, CA 93106-9530**
e-mail: claudio@neutrino.physics.ucsb.edu

They should also arrange to have at least three letters of recommendation sent to the same address. For primary consideration, applications should be received by January 1, 2000; positions will remain open until filled.

The University of California is an Equal Opportunity/Affirmative Action Employer committed to excellence through diversity.

**Faculty Position
In Experimental High Energy Physics
Department of Physics
University of California, Davis**

The Department of Physics at the University of California at Davis invites applications for a faculty position in experimental high energy physics. This position has a targeted start date of July 1, 2000, which is negotiable. The appointment will be at the tenure-track Assistant or tenured Associate Professor level as determined by qualifications and experience.

The UC Davis experimental group is primarily focused on the Tevatron and LHC Collider programs. We seek candidates with outstanding research records, strong leadership abilities, and clear potential for impact upon these collider programs. Applicants must have a Ph.D. in physics and the ability to teach effectively at the undergraduate and graduate levels. Demonstrated success in conducting an active research program in experimental high energy physics is essential. The department has recently established a computational physics major program. The potential to contribute to the teaching and research in this area will be taken into consideration.

This position is open until filled; but to assure full consideration, applications should be received by December 29, 1999. To initiate the application process, write an e-mail message to forms@physics.ucdavis.edu and follow the instructions. Those who do not have access to e-mail should send curriculum vitae, publication list, research statement, and the names (including address, e-mail, fax, and phone number) of three or more references to:

Professor Winston Ko, Chair
Department of Physics
University of California, Davis
One Shields Avenue
Davis, CA 95616-8677

Further information about the department may be found on our website at <http://www.physics.ucdavis.edu>.

The University of California is an affirmative action/equal opportunity employer. The University undertakes affirmative action to assure equal employment opportunity for minorities and women, for persons with disabilities, and for special disabled veterans, Vietnam era veterans, and any other veterans who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized.



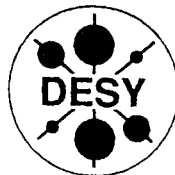
**The particle physics groups at
the Universities of Bergen and
Oslo in Norway invite
applications for a research grant
leading to a PhD degree.**



The candidate is expected to work on physics topics in one of the following experiments: BaBar (Bergen), HERA-B (Oslo), DELPHI or ATLAS (Bergen or Oslo).

The grant is for three years; with a salary before taxes of NOK 20100 per month.

Applicants should send, postmarked by January 15, 2000, their resume, publications list, and a proposal for a research project to **Department of Physics, University of Oslo, P.O. Box 1048, N-0316 Oslo, Norway.**



DEUTSCHES ELEKTRONEN SYNCHROTRON DESY

DESY is one of the leading laboratories in particle physics and synchrotron radiation research with locations in Hamburg and Zeuthen. In the framework of an international collaboration DESY is coordinating the development of the superconducting electron-positron linear collider project TESLA with integrated free electron laser facility.

The Laboratory in Zeuthen (near Berlin) invites applications for the position of a

POSTDOCTORAL FELLOWSHIP

for R&D work associated with a test facility for a laser driven RF-gun which is under construction at DESY Zeuthen.

It is anticipated that the candidate will play a leading role in this project. Significant contributions to the development, installation and optimisation of the RF-gun are expected. This includes measurements as well as simulations and further developments of theoretical models.

Applicants should have a Ph.D in physics. Substantial knowledge in accelerator physics and electron beam dynamics are required.

The position is limited to a duration of 2 years, with a possible extension for a third year.

The salary will be according to the German civil service BAT-0 IIa.

Handicapped applicants will be given preference to other applicants with the same qualification. DESY encourages especially women to apply.

Interested young scientists should send their letter of application and three names of referees and their addresses by December, 31th, 1999 to:

**DESY Zeuthen, Personalabteilung
Platanenallee 6, 15738 Zeuthen.**



**UNIVERSITY OF
CAMBRIDGE**

**Department of Physics,
Cavendish Laboratory**

***University Lectureship/University Assistant
Lectureship in Experimental Particle Physics***

Applications are invited from candidates with very strong research records in experimental particle physics or particle astrophysics for a University Lectureship/University Assistant Lectureship in the experimental particle physics group of the Cavendish Laboratory, Cambridge. It is hoped that the successful candidate will take up appointment on, or before, 1st October 2000.

The current group research interests include the CERN-based experiments OPAL at LEP, NA48 (CP-violation) at the SPS, and ATLAS and LHCb at the LHC, together with an active detector development programme. New initiatives in experimental particle physics or particle astrophysics are encouraged.

Further information, including details of the salary scales and tenure conditions, can be obtained from Dr. J. R. Carter (e-mail: jrc1@hep.phy.cam.ac.uk).

Applications (two copies) including a curriculum vitae, publications list, research statement and the full names, addresses, telephone/fax numbers, and e-mail addresses of three academic referees should be sent to Mr. P. Aslin, Secretary of the Appointments Committee, Institute of Astronomy, Madingley Road, Cambridge, CB3 0HA by 7th January 2000.

This post is one of six currently advertised in the Department of Physics. Appointments in the targeted areas depend upon the availability of candidates of sufficient merit.

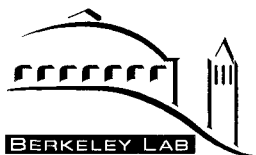
*The University is committed to equality of opportunity and
has a policy on arrangements for part-time work.*

THEORETICAL ELEMENTARY PARTICLE PHYSICIST

The Physics Division of the **Lawrence Berkeley National Laboratory** is seeking a theoretical elementary particle physicist for a Division Fellow or possibly, in the case of an exceptionally qualified senior candidate, a Senior Physicist position. Division Fellowships are the LBNL equivalent of tenure-track positions: Five-year appointments with a review in the fourth year to determine whether the Fellow will be promoted to a career appointment as a Senior Physicist.

The Division is seeking a candidate to pursue independent research within the theoretical physics group, which currently consists of three LBNL senior physicists and eight U.C. Berkeley faculty. Candidates should have research interests that are broadly related to the Physics Division experimental program, which is focused on understanding the standard model of elementary particle physics and its possible extensions and on the interface between particle physics and cosmology.

Candidates should submit an application with CV (hard copy only) and have four letters of recommendation sent to **Search Committee, c/o Katrina Printup, One Cyclotron Rd., MS 50-4049, Lawrence Berkeley National Lab, Berkeley, CA 94720**. Applications should reference job number **PHTH/011231** and should be postmarked by **01/15/00**. Berkeley Lab is an Affirmative Action/Equal Opportunity Employer, committed to the development of a diverse workforce.



— Post Doctoral Positions in — — Experimental Particle Physics —

The **Fermi National Accelerator Laboratory (Fermilab)** has openings for post doctoral research associates in experimental particle physics. The Fermilab research program includes experiments with the 2 TeV proton – antiproton collider, neutrino oscillation experiments, and fixed target experiments. There are several positions for recent Ph.Ds to join the CDF and DZero collider efforts which have major detector upgrades in progress and are scheduled to begin data taking in early 2001. There are also opportunities to join the upcoming neutrino oscillation experiments MiniBooNE or MINOS, the Cryogenic Dark Matter Search, fixed target experiments for data analysis, as well as detector R&D efforts. Positions associated with these experimental efforts are also available in the Computing Division for candidates interested in modern computing techniques applicable to HEP data acquisition and analysis.

Successful candidates are offered their choice among interested Fermilab experiments. Appointments are normally for three years with one year renewals possible thereafter. Every effort will be made to keep a Fermilab RA until he or she has the opportunity to reach physics results from his or her experiment.

Applications should include a curriculum vita, publication list and the names of three references. Applications and requests for information should be directed to: **Dr. Michael Albrow, Head – Experimental Physics Projects, [Albrow@fnal.gov], Fermi National Accelerator Laboratory, M.S. 122, P.O. Box 500, Batavia, IL 60510-0500. EOE M/F/D/V**



Fermilab

POSTDOCTORAL RESEARCH ASSOCIATE

Rutherford Appleton Laboratory, Oxfordshire

The Rutherford-Appleton Laboratory offers two Research Associate positions in Experimental Particle Physics to work on the Large Hadron Collider Beauty experiment (LHCb) at CERN, designed to make high precision measurements of the CP-violating decay modes of the B meson.

The recently formed LHCb group at RAL will work in close collaboration with other UK Universities and CERN on projects including the design and development of RICH detectors, related software for particle identification and its application to the physics of CP violation. Successful candidates will be expected to make significant contributions to corresponding areas of the R&D programme. The work will be based at RAL but will naturally involve some travel to UK Universities and CERN.

Applicants should have a PhD in Particle Physics or be close to finishing their thesis.

Some knowledge of modern particle detection techniques and proficiency in at least one high level computing language are essential. There will be occasions where overseas travel is required. The appointments are for a fixed term of up to 3 years but with the possibility of extensions of up to two years.

For an informal discussion about the posts please contact Prof. Ken Peach (+44) 1235 445782, e-mail: k.j.peach@rl.ac.uk. More information about CLRC is available from CCLRC's World Wide Web pages at <http://www.cclrc.ac.uk>

The salary levels are between £17,730 and £26,600 depending on 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, Rutherford Appleton Laboratory, Chilton, Didcot, Oxfordshire, OX11 0QX. Telephone (01235) 445435 (answerphone) or e-mail: recruit@rl.ac.uk quoting reference VN1878/99. 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 14th January 2000.

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**



DESY is a physics research laboratory with 1400 employees and more than 3000 guests scientists from Germany and abroad. The scientific programme includes research in particle physics and synchrotron radiation.

DESY invites applications for the position of an

Accelerator Physicist or Engineer

The candidate will be responsible coordinator of the DESY II and III Synchrotrons. He is expected to assure successful routine operation and to continuously improve the machines.

Applicants should have a degree in physics or engineering and should have profound knowledge of accelerator physics and technology. They should have many years of experience in running accelerators.

The appointment will be indefinite with a salary according to federal tariffs (BAT) depending on experience and ability.

Letters of application including a curriculum vitae, list of publications and the names of three referees should be sent to:

DESY, Personalabteilung, Notkestraße 85, D-22607 Hamburg, by January 31st, 2000
Code-No. 110/99

Handicapped applicants will be given preference to other applicants with the same qualification. Women are especially encouraged to apply for this position.



RHEINISCHE
FRIEDRICH-WILHELMS-UNIVERSITÄT BONN
PHYSIKALISCHES INSTITUT

The SAPHIR collaboration at the Physikalisches Institute of the University of Bonn has an opening for a doctoral candidate (BAT IIA/2) or a postdoc (BAT IIA). The goal of this position is the physics analysis of the new data from the SAPHIR detector at the ELSA electron ring. The work concerns the structure and interactions of hadrons and quarks in the confinement region. In particular, the following topics are to be addressed: investigation of the production mechanism for hadrons with strangeness and the search for new resonances produced in association with strange mesons and baryons as well as with 'normal' pseudoscalar and vector mesons. The data sets available consist of multiparticle final state events produced by real photons of energy between 0.9 and 3.0 GeV incident on a hydrogen target.

Apply to: Prof. Dr. F. Klein, Physikalisches Institut, Nussallee 12,
D-53115 Bonn. klein@physik.uni-bonn.de,
Tel.: *228/732340, Fax: *228/733518

Further information:

Prof. Dr. W.J. Schulle, schulle@physik.uni-bonn.de
Tel.: *228/733213, Fax: *228/737869; www: <http://physik.uni-bonn.de>

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IoP

University of Virginia FACULTY POSITION IN EXPERIMENTAL HIGH ENERGY PHYSICS

The Department of Physics at the University of Virginia invites applications for a tenure-track faculty position in experimental High Energy physics at the assistant professor level. The successful candidate should have Ph.D. degree or equivalent, an outstanding research record and will be expected to expand the range of the activities of the UVa experimental High Energy group by taking a leading role in one of the major High Energy projects planned for the future. The candidate should have a commitment to excellence in undergraduate and graduate education. It may be possible to consider an exceptional candidate at a higher level. The position will be available in September 2000. The deadline for applications to receive full consideration is December 31, 1999. Candidates should submit their curriculum vitae, list of publications, two-page statement of research plans and arrange to have three letters of recommendation sent directly to: **Prof. Michael Fowler, Dept. Chairman, Attn: HEP Search, Department of Physics, University of Virginia, McCormick Road, Charlottesville, CA 22903.**

The University of Virginia is an equal opportunity/affirmative action employer.
Women and underrepresented minorities are strongly encouraged to apply.

University of California, Los Angeles Postdoctoral Position in Experimental Astro-particle Physics

A Postdoctoral Research Position in Experimental Astro-particle Physics is available at UCLA starting immediately. We have recently started a new research program in the area of ultra high energy cosmic ray experiments. We are currently collaborating in Pierre-Auger and HiRes experiments. We also intend to work closely on related future projects such as the Telescope Array and OWL/AirWatch. The successful candidate for this position will be expected to take a leading role in these experiments.

Applications should be received by January 31, 2000. Applicants should send a letter of interest, curriculum vitae with a list of publications, and should arrange to have three letters of recommendation sent to:

Professor Katsushi Arisaka, UCLA Department of Physics and Astronomy,
Box 951547, Los Angeles, CA 90095-1547.
E-mail inquiries should be addressed to arisaka@physics.ucla.edu.

UCLA is an affirmative action/equal opportunity employer.

CERN COURIER RECRUITMENT BOOKING DEADLINES

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Contact Chris Thomas:

Tel. +44 (0)117 9301031

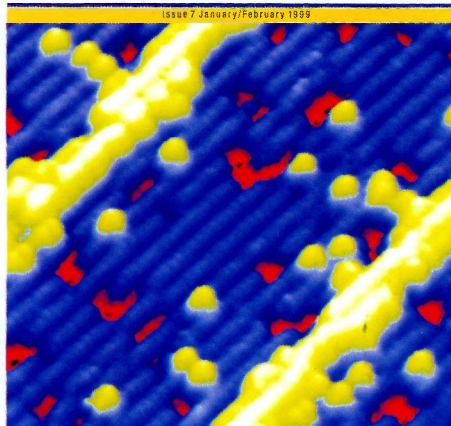
Fax +44 (0)117 9301178

E-mail chris.thomas@ioppublishing.co.uk
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VACUUM SOLUTIONS

Issue 7 January/February 1999



Scanning probe microscopy: new techniques reveal more about materials

Computer simulation: software takes the risk out of system design

Vacuum seals: magnetic fluids seal chambers against moving parts

Written by industry insiders and scientific experts, *Vacuum Solutions* is the dedicated publication highlighting the latest innovations that rely on the use of vacuum technology.

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