

RECRUITMENT

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OPTO-MECHANICAL SIMULATION PHYSICIST

Laser Interferometer Gravitational-Wave Observatory (LIGO) in Pasadena, CA

The candidate will develop code for the simulation of interferometric gravitational wave detectors under the direction of a senior LIGO scientist. The candidate will begin by working on existing models which have been under development for some years and will work to extend the models to simulate a full Advanced LIGO interferometer. In addition, they will spend time working at the sites using the results of simulations to facilitate the commissioning of the Advanced LIGO Detectors. This is 3-year term, renewable position.

Masters degree in a related discipline with at least 8 years of relevant experience is required. Good programming skills using object oriented design, experience in the simulation of complex opto-mechanical systems or other equally complex scientific experiments and a strong knowledge of physics. The candidate must have an excellent working knowledge of C++ and will be required to supply samples of their code as part of the application process. In addition to strong experience in the simulation of complex systems, the candidate must have a good background in physics including: 1) basis optics including optical beam propagation, 2) mechanics, and 3) heat transfer.

To be view a full job description and/or to be considered for this position, please submit your resume at the following link:

<http://tinyurl.com/dx5lju>

We are proud to be an EOE/AA employer.

TRAVAILLER À L'UNIVERSITÉ DE GENÈVE

The Faculty of Sciences at Geneva University opens the application of position of

Full Professor, Associate Professor or Assistant Professor in Theoretical Physics

POSITION: This is a permanent full time position with 6 hours of teaching per week as well as research activities at the interface of quantum information and condensed matter theory or theoretical quantum optics. The candidate is expected to pursue a rigorous program in this field and to participate in the supervision of graduate students and teaching on all levels.

CHARGE: 100%

REQUIREMENTS: PhD in physics or equivalent.

STARTING DATE: September 1, 2010 or as agreed.

Applications, including curriculum vitae, list of publications and list of references are to be sent before 31st October, 2009 to the Secretary of the Dean of the Faculty of Sciences, 30, quai Ernest Ansermet, CH-1211 Genève 4 (Switzerland), where further information concerning this position and the working conditions can be obtained, or by e-mail to: lissette.marques@unige.ch.

*The University of Geneva is an
equal opportunity employer and
encourages female candidates.*



UNIVERSITÉ
DE GENÈVE



European Synchrotron Radiation Facility

We Highlight Science



The ESRF is a multinational research institute, employing 600 staff, located in Grenoble in the heart of the French Alps. The ESRF is financed by 19 countries and carries out fundamental and applied research with synchrotron (X-ray) light.

In the context of an upgrade of the accelerator systems, we are currently seeking:

A Post-doctoral Fellow (m/f)

for the development of a cryogenic permanent magnet undulator, Ref.PDAS02

For further information please consult:

<http://www.esrf.fr/Jobs/Research/PDAS02>

To apply send a letter and CV + application form (available on <http://www.esrf.fr/Jobs/Applying>), bearing the reference PDAS02 before 20 August 2009 to recruitment@esrf.fr or ESRF, Personnel Group, 6 rue Jules Horowitz BP 220, 38043 Grenoble cedex 09.

Deadline for applications: 20 August 2009.



TECHNISCHE
UNIVERSITÄT
DRESDEN

At the Faculty of Science, Department of Physics, in the Institute for Nuclear and Particle Physics we have an opening for a

Postdoctoral Fellow in Experimental Particle Physics (E 13 TV-L)

The position is starting after 01.12.2009 for an initial period of three years with a possible extension of two years. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz – WissZeitVG).

The ATLAS group in Dresden is a member of the "Forschungsschwerpunkt FSP-101" of the BMBF, the Helmholtz-Alliance "Physics at the Terascale" and of the Graduate school 1504 "Masse, Spektrum, Symmetrie" of the DFG. Activities of our group include studies of signal and background processes for Higgs boson searches both within and beyond Standard Model, reconstruction and identification of tau-leptons as well as operation and maintenance of the ATLAS Liquid-Argon calorimeter.

Duties: The successful candidate is expected to play a leading rôle in our data analysis activities. He/She will contribute to the maintenance of the local computing cluster in close collaboration with the Dresden Center for High Performance Computing (ZIH). Participation in the development of digital readout electronics at the interface to the trigger system for the upgrade of the liquid-Argon calorimeter in the context of the sLHC project and contributions to the teaching activities at the faculty are possible.

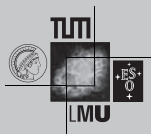
Qualification: A Ph.D. in experimental high energy physics is required. The successful candidate should have an excellent record of scientific achievements and the ability to coordinate the scientific activities of the group. Experience in the field of "Distributed Computing" or in digital electronics and fast serial networks would be an asset. Exceptional candidates will be offered the possibility of a "Habilitation".

Applications from women are particularly welcome. The same applies to disabled people.

Please submit your application by **August 27, 2009** (Deadlines refer to the date on the postmark of the University's Post Room Service) including your CV, a summary of research interests, list of publications with own contributions, a copy of the certificate of your highest academic degree and three names of referees to TU Dresden, Fakultät Mathematik und Naturwissenschaften, Fachrichtung Physik, Institut für Kern- und Teilchenphysik, Herrn Prof. Dr. M. Kobel, 01062 Dresden, Germany or to IKTP@physik.tu-dresden.de (Please note: We are currently not able to receive electronically signed and encrypted data).

The Excellence Cluster for Fundamental Physics

'Origin and Structure of the Universe'



The Cluster of Excellence 'Origin and Structure of the Universe' is a research institution at the Technical University Munich funded by the Excellence Initiative of the Federal Government of Germany. It is a co-operation by the physics departments of the Technical University Munich and the Ludwig-Maximilians University, four Max-Planck Institutes (MPA, MPE, MPP, IPP) and ESO. The main goal of the Cluster is to solve fundamental questions of astrophysics and cosmology.

RESEARCH FELLOWS

In the **Fellow Program** we are looking for excellent young scientists (experienced postdocs). One of the most prominent goals of the Cluster is to foster interdisciplinary work between particle and astrophysics. Therefore, we are especially interested in candidates who can contribute to the following fields:

- Dark matter and SUSY,
- Leptogenesis and matter-antimatter asymmetry,
- Neutrinos and stellar explosions.

Beside these vacancies, candidates can also apply with research issues chosen by themselves. Research fellows with the Cluster are expected to engage in a strong collaboration with existing research groups. They will receive their own budget for running costs. The duration of their contracts is two years.

POSTDOCTORAL RESEARCHERS

DOCTORAL STUDENTS

Postdoctoral Researchers will work in specific groups and in well-defined projects, outlined in more detail in the specific job description on our website.

Doctoral Students will be assigned to specific projects and supervisors. The students will be enrolled at the supervisor's University that will also award the doctoral degree in physics. The duration of the PhD program is three years.

Candidates of all groups are chosen in a competitive manner. They will benefit from the outstanding scientific infrastructure at the Garching Campus and the team-oriented, interdisciplinary work atmosphere. Regular seminars, conferences and our extensive visiting-scientists program offer excellent opportunities for researchers to broaden their scientific horizon and embark upon new collaborations.

The advancement of women in science is an integral part of the Cluster's and the University's policies. Therefore, we especially encourage women to apply. Persons with disabilities will be given preference to other applicants with equal qualifications.

Application:

Details on job vacancies and research of the Cluster can be found on our website www.universe-cluster.de. Applicants should complete the web-based application form in the respective job description (-> **jobs button**). Here you also find further information on deadlines and the application documents required.

Contact:

Technische Universität München · Excellence Cluster Universe
Dr. Andreas Müller · Boltzmannstrasse 2
85748 Garching · Germany



The Abdus Salam
International Centre for Theoretical Physics



SENIOR RESEARCH SCIENTIST POSITION

The Abdus Salam International Centre for Theoretical Physics (ICTP) is a world-class institution focused on research in basic sciences with responsibility for the promotion, dissemination and support of science, especially in developing countries. It operates under the aegis of UNESCO and IAEA.

P-4 post - ref: EU/TP/ITA/SC/0824

- Physics at Large Hadron Collider (LHC) and future accelerators

The successful candidate is expected to undertake forefront research in "Physics at LHC and Future High Energy Colliders". He/she should create and lead a research team composed of post-doctoral fellows and visitors. He/she should establish and maintain scientific contacts with CERN and other accelerator centres and act as a liaison between the High Energy group and another groups around the world. He/she is expected to lecture in the High Energy Diploma Programme, to coordinate and supervise the organization of schools and conferences and run the visiting programme in the area of Physics at LHC and Future High Energy Accelerators.

Requirements:

- Ph.D. or equivalent doctoral level in physics, with speciality in High Energy Physics
- 7-10 years of progressively responsible relevant experience, of which preferably 5 - 7 years acquired at the international level after completion of Ph.D
- An established record of accomplishment in a broad area of research and be engaged in independent research at the frontiers of his/her field; an established record of publications in high-impact scientific journals
- Excellent knowledge of written and spoken English
- A positive attitude towards the international and multicultural characteristics involved in the assignment

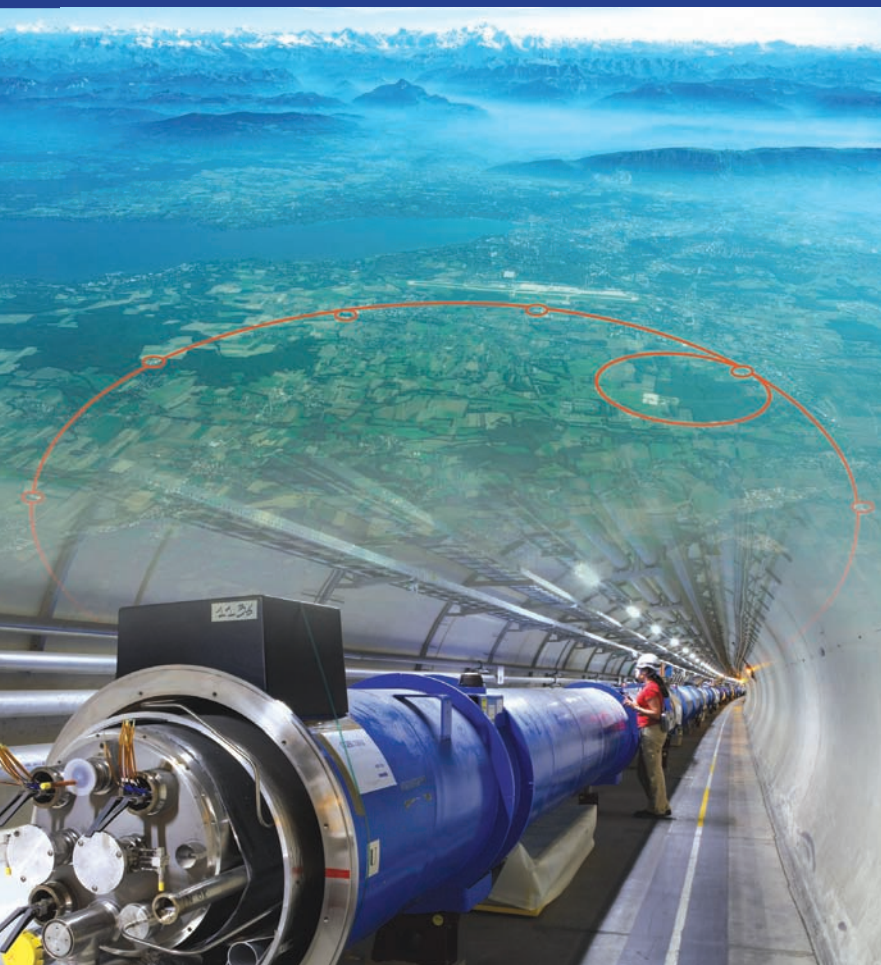
Information and applications: <http://portal.ictp.it/vacancy>.

Deadline: 30 November 2009.

**Advertise your vacancy
to a global audience
on the new jobs website
from IOP Publishing.**

www.brightrecruits.com





CERN is at the forefront of technologies in many fields, and there are opportunities for both working and learning at CERN, including student and graduate programmes, as well as vacancies in many fields.

• Student Programmes

Opportunities in physics, engineering and computing

How about spending a paid training period in an exciting multidisciplinary and multicultural environment together with leading scientists from all over the world? Various possibilities are offered to students from the CERN Member States to come and join the world's leading particle physics laboratory.

• Fellowship Programme

Particle physics research and a broad range of applied science, computing and engineering opportunities

Boost your career and contribute your ideas to the Organization! Have you recently graduated from university or an advanced technical institute? Are you interested

in working for one or two years in an international environment at the forefront of research? There are currently over 300 Fellows working throughout CERN.

• Staff Employment

Opportunities ranging through the phases of R&D, administration, design, production, operation and maintenance

Are you qualified in computer science, electronics, physics, electricity, radio frequency, cryogenics, ultrahigh vacuum, radiation protection, cooling and ventilation, operation of accelerators or superconductivity? CERN recruits around 100 engineers, technicians and applied physicists each year. We also seek administrative staff in finance, personal management, law, purchasing and accounting.

More info on www.cern.ch/jobs



European Organization for Nuclear Research | Organisation européenne pour la recherche nucléaire

MANCHESTER
1824Faculty of Engineering & Physical Sciences
School of Physics & Astronomy**Research Fellow in Detector Development
for Ionising Radiation**

£36,533 to £44,931 p.a.

Ref: EPS/90718

Applications are invited for a research fellow in detector development for ionising radiation including charged particles, heavy ions and gamma rays. The post will support research in nuclear physics at the University and is funded by a Science and Technology Facilities Council Rolling Grant. The nuclear physics programme involves development/exploitation activities at a number of overseas accelerator facilities. You will be expected to lead detector developments for ionising radiation, support exploitation of existing equipment, coordinate the technical support team and manage the research laboratory. You will be expected to hold a PhD, or equivalent record of research, in a relevant field, and have extensive experience of developing detectors for ionising radiation. The appointment is funded for up to 4 years in the first instance.

Informal enquiries may be made to Prof. SJ Freeman
Tel: +44 (0) 161 275 4154, Email: sean.freeman@manchester.ac.uk.

Further particulars are available from our website
www.manchester.ac.uk/jobs

If you are unable to go online you can request a hard copy of the details from The Directorate of Human Resources, Faculty of Engineering and Physical Sciences,
Tel: +44 (0) 161 275 8837, Email: eps-hr@manchester.ac.uk

Closing date: 21 September 2009.

The University will actively foster a culture of inclusion and diversity and will seek to achieve true equality of opportunity for all members of its community.



The **Physics Department at Brookhaven National Laboratory** is seeking to fill two Postdoctoral Research Associate positions. These positions require a Ph.D. in physics, high energy nuclear physics or high energy physics. Experience in experimental particle or high energy nuclear physics and knowledge of physics event generators and detector simulation packages are highly desirable. These positions will involve work on physics and detector simulations to further develop the physics case of a new electron-ion collider (EIC) and guide the design for the detector. BNL has recently initiated a dedicated program of research in this area and is seeking talented individuals to actively participate in this effort. Work on the preliminary design of an EIC at BNL (eRHIC) is underway. The successful candidates will get involved in studies of ep and eA collisions and the referring physics topics and document the feasibility of a broad range of measurements. In addition, the candidates will be expected to spend a fraction of his/her time on one of the existing RHIC experiments, either in the spin or the heavy-ion program. BNL policy states that Research Associate appointments may be made to those who have received their doctoral degrees within the past five years. Under the direction of E. Aschenauer and T. Ullrich, Physics Department. **Please go to <http://www.bnl.gov/hr/careers/> and click on Search Job List to apply for this position. Please apply to Job ID # 14899.** Brookhaven National Laboratory is an equal opportunity employer committed to building and maintaining a diverse workforce.



European Synchrotron Radiation Facility

We Highlight Science



Physics and Chemistry, Life Sciences and Medicine, Earth and Environmental Sciences, Surface and Materials Sciences.

The European Synchrotron Radiation Facility (ESRF) is Europe's most powerful light source. The ESRF offers you an exciting opportunity to work with international teams using synchrotron light in Grenoble, in the heart of the French Alps.

Have a look at our vacancies at
www.esrf.eu/jobs

Contact us at recruitment@esrf.eu

Scientists - Post doctoral fellows - PhD students - Engineers - Technicians - Administrative staff

European Synchrotron Radiation Facility
ESRF, BP 220, F-38043 Grenoble Cedex 9, FRANCE
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Advertise with *CERN Courier* to reach a global audience of 290 000* from the high-energy physics and scientific computing communities (includes eight weeks' free advertising on cerncourier.com/jobs and physicsworld.com/jobs).

Call Moo Ali on +44 (0)117 930 1264 or e-mail moo.ali@iop.org.

cerncourier.com/jobs

*Combined visitor numbers to cerncourier.com and physicsworld.com; publisher's own data.



ESO

European Organization
for Astronomical
Research in the
Southern Hemisphere



ESO is opening the position of

Director of Programmes

Career Path VII

Purpose of the job:

The Director of Programmes reports directly to the Director General and assists him in developing the overall strategy for ESO Programmes and is accountable for their execution. The Programmes Directorate comprises currently three Divisions with approximately 150 staff responsible for VLT, VLTi, VST, VISTA, E-ELT, instrumentation and adaptive optics development, and provision of technical support to ALMA. As an active scientist and Full Astronomer in the ESO Astronomy Faculty he/she also maintains personal scientific and technical contacts internationally at the highest level.

Key Activities:

The Director of Programmes will:

- Be responsible for the setting of programmatic priorities and resource planning;
- Conduct regular Programme reviews;
- Provide regular information and status reports to the Director General;
- Report on ESO Programmes as required by Council and other external committees and to the community at large via conferences and special events;
- Work together with the Director General, the other Directors and the Division Heads to develop and implement ESO-wide policies and strategies;
- Identify opportunities for improvement/development within and across Divisions, and for further development/growth of the organization; and
- Assist the Director General in developing strategic plans for ESO's overall programmes.

The tasks are not limited to the above and a flexible approach and ability to adapt to an evolving situation is required.

Professional Requirements / Qualifications:

Basic requirements for the position include a PhD in astronomy, astrophysics, physics or related fields; a proven record of scientific leadership and at least 10 years' experience in international scientific collaborations. Substantial management and leadership experience within a scientific organisation, preferably international, is also required. Excellent communication skills and a very good knowledge of English are essential.

The Director of Programmes is a member of the ESO Astronomy Faculty and is encouraged and expected to conduct active astronomical research.

Key Competences:

- The ability to think strategically, to take effective decisions and provide leadership.
- Seeks to understand the perspective of key decision makers and partners – thinks through their needs and interests to identify their agenda.
- Builds strong and effective links within and outside the organization.
- Demonstrates initiative, pro-activeness and good negotiation skills.

Duty Station: Garching near Munich, Germany, with regular duty travels to Chile.

Starting Date: As soon as possible.

Remuneration and Contract: We offer an attractive remuneration package including a competitive salary (tax-free), comprehensive social benefits and financial help in relocating your family. The initial contract is for a period of three years with the possibility of a fixed-term extension. Either the title or the grade may be subject to change according to qualification and the number of years of experience.

Serious consideration will be given to outstanding candidates willing to be initially seconded to ESO on leave from their home institutions.

Application: If you are interested in working in areas of frontline technology and in a stimulating international environment, you are invited to apply online at <https://jobs.eso.org/>. Applications must be completed in English and should include a motivation letter and CV. The position requires three **letters of reference** to be sent to vacancy@eso.org.

The review of application will start on 1 September 2009; however applications will be accepted until the position is filled.

Although recruitment preference will be given to nationals of ESO Member States (members are: Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Italy, the Netherlands, Portugal, Spain, Sweden, Switzerland and United Kingdom) no nationality is in principle excluded.

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

Max Planck Institute for Physics

(Werner Heisenberg Institute)



The Max Planck Institute for Physics invites applications for a

Postdoctoral position

to participate in a new effort on proton-driven plasma wakefield acceleration.

The concept of proton-driven plasma wakefield acceleration has recently been proposed as a means of accelerating a bunch of electrons to high energies with very high gradients. Initial calculations are promising, as shown in *Nature Physics* 5, 363 - 367 (2009), and a demonstration experiment is now under consideration. The successful candidate would help in producing a proposal for such an experimental demonstration. The focus of the work would be on developing characterization techniques for the plasma wakefields and for the drive and witness bunches. An experimental technique under consideration to extract time and space resolved information on electric fields is single-shot electro-optical sampling.

Formal requirement for this position is a PhD in experimental particle, plasma or accelerator physics. Previous experience in plasma wakefield experiments, terahertz physics and/or nonlinear optics are an advantage.

Salary and benefits are commensurate with public service organization (TVöD) rules. The contract is initially limited to 2 years with the possibility of an extension. The Max Planck Society is an equal opportunity employer. The goal is to enhance the percentage of women where they are underrepresented. Women, therefore, are especially encouraged to apply. The MPG is committed to employing more handicapped people. Applications of handicapped people are particularly welcome.

Interested applicants should submit an application letter, a statement of research interests, a curriculum vitae, a list of publications, and arrange for three letters of support to be sent to

Max-Planck-Institut für Physik

Frau F. Rudert
Föhringer Ring 6
D-80805 München
Germany



MAX-PLANCK-GESELLSCHAFT

Further information can be obtained from Prof. Allen Caldwell
(EMail: caldwell@mppmu.mpg.de).

Applications should be sent at the latest by August 30, 2009.



**BERGISCHE
UNIVERSITÄT
WUPPERTAL**

Funded by the German Research Foundation (DFG), an interdisciplinary project of particle physicists, philosophers and historians of science will start in January 2010 on

Epistemology of the Large Hadron Collider (LHC)

We invite applications for three positions as Research Associates for each of the topics

- **Epistemic dynamics of model development,**
- **Data selection between theory ladenness and exploration,**
- **Ontology and epistemology of the Higgs mechanism (subject to financial approval)**

The positions will be filled for three years with a salary according to TVL-13.

Candidates are required to have a PhD. in either particle physics or philosophy/history of science as well as basic knowledge in the respective other field. Please present your c.v., publication list, topic(s) of interest and provide two letters of reference.

Send your applications until September 1, 2009 to

lhc-epistemologie@uni-wuppertal.de

Bergische Universität Wuppertal, IZWT, Prof. Steinle, 42097 Wuppertal, Germany.

Informal inquiries should be directed to either one of the following persons: Peter Mättig (peter.mattig@cern.ch), Friedrich Steinle (steinle@uni-wuppertal.de), Holger Lyre (lyre@uni-bielefeld.de).

Details of the project can be found under www.lhc-epistemologie.uni-wuppertal.de

The University of Wuppertal is committed to employing more female scientists and particularly welcomes applications from qualified female physicists.

**JOHANNES
GUTENBERG
UNIVERSITÄT
MAINZ**

The Department of **Physics, Mathematics and Computer Science** has an opening for a

University Professor for Experimental Physics (Bes.Gr. W 2 BBesG)

at the Institute of Physics to be filled immediately.

Internationally renowned researchers who will strengthen or broaden the research activities of the Experimental Particle and Astroparticle Physics group are invited to apply. Currently the group is involved in the ATLAS and NA62 experiments (CERN), D0 (Fermilab) and IceCube (Amundsen-Scott Station). To maintain the breadth of the research program in the long term, the department is open for new research activities in other areas of particle and astroparticle physics that build on the current research program of the working group, for instance in the area of dark matter searches. Applicants with an interest in the area of detector development are also welcome. A collaboration with the research centre „Fundamental Forces and Mathematical Foundations“, which provides financial support for this position, is expected.

Applicants are expected to have a Ph.D. in physics, a proven first rate research record and to have interest in and aptitude for teaching. The Johannes Gutenberg-Universität promotes a concept of intensive tutoring and requests a high rate of presence at the University. Participation in all teaching activities, in particular in courses for students studying to teach physics, is expected.

The Johannes Gutenberg-Universität Mainz aims at increasing the percentage of women in academic positions and strongly encourages female scientists to apply. Moreover, the University seeks to apply for additional funds via the Professorinnenprogramm initiated by the federal ministry (BMBF) provided that the conditions for eligibility are satisfied.

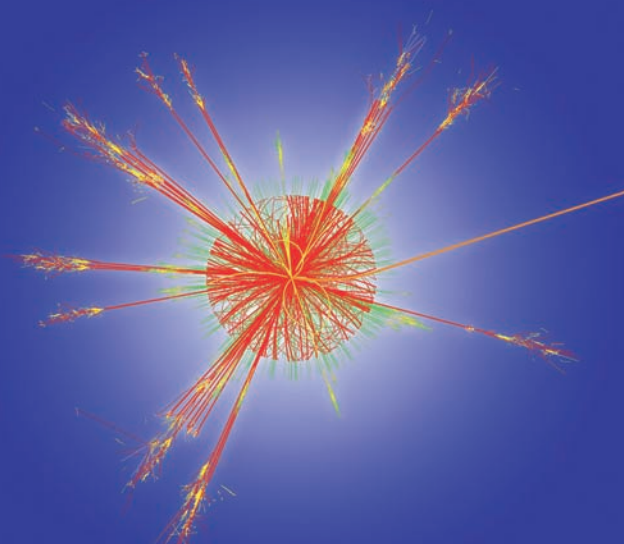
The University is an equal opportunity employer and particularly welcomes applications from persons with disabilities.

Qualified candidates are asked to submit their applications by **July 20th, 2009**, including curriculum vitae, list of publications, list of teaching experience, list of past research grants, and a description of current and future research interests to the



**Dekan des Fachbereichs 08
- Physik, Mathematik und Informatik -
Johannes Gutenberg-Universität Mainz
Staudingerweg 7, D-55128 Mainz**

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