

RECRUITMENT

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Max-Planck-Institut für Physik

(Werner-Heisenberg-Institut)



ATLAS Postdoctoral Position

The Max Planck Institute for Physics is engaged in fundamental research in particle and astroparticle physics from both experimental and theoretical perspectives. One main research activity is the participation in the ATLAS experiment at the Large Hadron Collider (LHC) at CERN. The institute has contributed to the design, construction and commissioning of the Semiconductor Tracker, the Hadronic Endcap Calorimeter and the Muon Spectrometer of the ATLAS detector.

We invite applications for a postdoctoral position in experimental particle physics within our ATLAS group. The group is engaged in a research program for the tests of the standard model of particle physics. It searches for the Higgs boson, for supersymmetric particles and is involved in trigger, detector and electronics development for future upgrades of the ATLAS detector. The successful candidate is expected to play a leading role in the ATLAS data analysis focusing on detector performance studies, measurement of standard model processes with first data and Higgs boson searches. The candidate should also contribute significantly to the improvement of the ATLAS muon trigger and to the development of gaseous precision tracking detectors for the upgrade of the ATLAS Muon Spectrometer.

Salary and benefits are according to the German public service pay scale (TVöD Bund). The contract is initially limited to three years with the possibility of extension within the frame of the German Wissenschaftszeitvertrags-gesetz. The Max Planck Society is an equal opportunity employer.

For questions concerning the position please contact Dr. sc. Sandra Horvat (sandra@mppmu.mpg.de). Interested applicants should send an application letter including curriculum vitae, list of publications and a statement of research interests and arrange for three letters of recommendation to arrive no later than **January 31, 2010** at the following address:

Max-Planck-Institut für Physik
(Werner-Heisenberg-Institut)
Frau A. Schielke
Föhringer Ring 6
D-80805 München
Germany



MAX-PLANCK-GESELLSCHAFT

PAUL SCHERRER INSTITUT



The Paul Scherrer Institute is with 1300 employees the largest research centre for the natural and engineering sciences in Switzerland and a worldwide leading user laboratory. Its research activities are concentrated on the three main topics of solid-state physics, energy environmental research and human health.

One of the main projects in the Laboratory of Particle Physics is the fundamental research using high intensity muon beams to probe the Standard Model of Electroweak Interactions.

We are seeking to recruit for a two to three year appointment a

Postdoctoral Fellow in experimental particle physics

Your tasks

The MEG experiment searches for the lepton-flavor violating decay $\mu^+ \rightarrow e^+ \gamma$ with a sensitivity down to 10^{-13} . This challenging experiment has been commissioned recently and is in its data taking phase for the next couple of years. You are expected to collaborate in the operation and data analysis of this experiment and in possible hardware improvements or detector upgrades. Your second activity will be the participation in the design of a novel high intensity slow muon beam source and its application. This involves detailed simulations as well as cryogenic test set-ups using the current PSI muon beam lines and infrastructure.

Your profile

- PhD degree in physics
- Experience in experimental particle physics including simulation and data analysis
- Excellent communication skills in English and a working knowledge of German are required

You like to work in an international team with several dozens of physicists but are also able to work on your own taking certain responsibilities.

For further information please contact:

Dr Stefan Ritt, phone +41 (0)56 310 37 28, stefan.ritt@psi.ch

Please submit your application to:

Paul Scherrer Institut, Human Resources, Ref. code 3202,

Thomas Erb, 5232 Villigen PSI, Switzerland or to: thomas.erb@psi.ch.

www.psi.ch



French CNRS Creatis laboratory (based in Lyon) is looking for an engineer, a PhD student and 3 master students to work on highperformance and grid computing for medical imaging applications.

The **engineer position** is for 30 months, starting in January 2010. He/she will be in charge of the developments of a virtual imaging platform supporting compute-intensive medical image simulations in MRI, ultrasound, PET and CT. The target execution infrastructure is the EGEE grid, one of the largest distributed systems in the world. The engineer will interact with 4 other project partners in France and collaborate with some European research groups.

The **PhD subject** deals with the handling of heterogeneity for distributed applications. The candidate will propose models and algorithms to optimize applications running on highly heterogeneous platforms made of grids, clusters, supercomputers and GPUs. The thesis will be cosupervised with company Maat Gknowledge. Expected start date is January 2010.

Master subject 1 aims at developing and validating a realistic model for CT medical images. Model parameters will be tuned by comparison with experimental and clinical

data to ensure realism of simulated images. Simulations will be conducted on local clusters.

Master subject 2 targets a parameter study for the segmentation of the left ventricle in 3D+t cardiac MRI. Based on large-scale experiments supported by the EGEE grid, the student will investigate the influence of 4 parameters on the quality of the segmentation and their dependencies.

Master subject 3 is related to our on-going effort to develop a high-level interface to perform GATE Monte-Carlo simulations on distributed platforms. The student will propose and implement load-balancing and data placement algorithms for GATE with the goal of speeding up intensity-modulated radiation therapy (IMRT) simulations.

Additional information about those vacancies is available at <http://www.creatis.insa-lyon.fr/site/en/node/39133>



MACHINE BEAMCONTROLS.

DESY, Hamburg location, is seeking:
Physicist or Engineer (m/f)

DESY

DESY is one of the world's leading centres for the investigation of the structure of matter. DESY develops, runs and uses accelerators and detectors for photon science and particle physics.

The Group MSK is responsible for the timing, synchronization and beamfeedback systems for all accelerators at DESY.

The position

- Leading the Group MSK
- Responsibility for the efficient organisation of resources for the projects of the group: These are the low level RF regulation systems of the accelerators FLASH and XFEL, orbit and multibunch feedback systems and the timing and synchronization systems for DORIS and PETRA III and the pre-accelerators

Requirements

- Physicist or engineer with PhD
- Long-standing experience in the above fields and in construction and operation of accelerators
- Planning and organizing complex matters
- Excellent communication skills, team ability as well as leadership experience and very good English language skills

For further information please contact Dr. Reinhard Brinkmann, phone +49 40 8998-3197, reinhard.brinkmann@desy.de

DESY operates flexible work schemes. Handicapped persons will be given preference to other equally qualified applicants. DESY is an equal opportunity, affirmative action employer and encourages applications from women. There is an English-speaking Kindergarten on the DESY site.

Please send your application quoting the reference code, also by e-mail to:
Deutsches Elektronen-Synchrotron DESY
Human Resources Department | Code: 131/2009
Notkestraße 85 | 22607 Hamburg | Germany
Phone: +49 40 8998-3392 | E-mail: personal.abteilung@desy.de
Deadline for applications: 23 Dezember 2009
www.desy.de

The Helmholtz Association is Germany's
largest scientific organisation.
www.helmholtz.de



The Paul Scherrer Institute is with 1300 employees the largest research centre for the natural and engineering sciences in Switzerland and a worldwide leading user laboratory. Its research activities are concentrated on the three main topics of solid-state physics energy, environmental research and human health.

For the Detector Group that develops and constructs in particular position sensitive gas ionization detectors and belongs to the Laboratory of Particle Physics in the Department of Research with Neutrons and Muons we are looking for a

Detector Physicist

Your tasks

- You will be member of a group developing, constructing and operating position sensitive gaseous detectors for charged particles and neutrons.
- You will participate in experiments within the research program of the Laboratory for Particle Physics.

Your profile

You have a Ph.D. in Physics with a strong background in particle physics and detector physics combined with a broad expertise in design, construction and testing of position sensitive gaseous detectors and the associated readout electronics.

You like to work in a team of technicians and engineers collaborating with user groups of the PSI facilities. A good command of English and the local language German is required.

For further information please contact: Dr Malte Hildebrandt, phone +41 (0)56 310 21 45, malte.hildebrandt@psi.ch

Please submit your application to:

Paul Scherrer Institut, Human Resources, Ref. code 3206,
Thomas Erb, 5232 Villigen PSI, Switzerland or to: thomas.erb@psi.ch.
www.psi.ch

TRAVAILLER A L'UNIVERSITE DE GENEVE

The **FACULTY OF SCIENCES, Geneva University - Switzerland**, invites applications for a position as

FULL OR ASSOCIATE OR ASSISTANT PROFESSOR in experimental particle physics

RESPONSIBILITIES: This full-time appointment will be for an experimental physicist with an outstanding international reputation in the field of astroparticle physics at the frontier with **astrophysics and cosmology**. The preferred specialisation will be research using high energy probes or the study of large structures in the Universe.

The post involves important leadership responsibilities of a research group. The post also involves teaching and seminar responsibilities (6 or 4 hours per week, depending on position) at the undergraduate, graduate and postgraduate levels as well as administrative tasks at the Departmental, Faculty and University level.

REQUIRED DEGREE: Ph.D. or equivalent.

STARTING DATE: August 1, 2010 or as agreed.

Applications, including curriculum vitae, a list of publications, a short research plan and the names of 4 people who may be contacted, should be sent before **January 31, 2010**, to the Dean of the Faculty of Sciences, 30 Quai Ernest-Ansermet, CH-1211 Geneva 4, Switzerland, or by e-mail in one single file to Laure.Sollero@unige.ch, where further information concerning the job description and working conditions may be obtained.

Female candidates are particularly welcomed.



UNIVERSITÉ
DE GENÈVE

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www.brightrecruits.com

Max-Planck-Institut für Physik

(Werner-Heisenberg-Institut)



The Max Planck Institute for Physics (MPP) is engaged in fundamental research in particle and astroparticle physics from both experimental and theoretical perspectives. The ATLAS group there, together with the ATLAS group from Ludwig-Maximilians-University (LMU), the Leibniz Rechenzentrum (LRZ) and the Rechenzentrum Garching (RZG) operate a Tier-2 computing centre as part of the worldwide LHC computing grid (WLCG).

The MPP is searching for a research associate with a degree in

computer science or physics

to support the MPP component of the Munich Tier-2 centre. The new employee will work at RZG, which runs several supercomputers, data and archive servers, provides application support and is engaged in several international projects (www.rzg.mpg.de).

Your priority tasks:

- management and support of the grid middleware
- support of hardware and software of the local Tier-2 linux cluster

Your profile:

- several years of experience in large software projects
- good knowledge of the linux operation system
- good knowledge of programming languages such as perl, python or unix shell in a linux environment
- good teamwork, communication and learning skills
- fluent spoken and written English

Our offer:

- contract for three years with salary according to TVöD (Bund) up to level E14

The Max Planck Society is an equal opportunity employer.

Please direct any questions to S. Kluth (skluth@mpp.mpg.de, +498932354468) or J. Kennedy (john.kennedy@rzg.mpg.de, +498932992694). Please send your complete application **before January 15, 2010** to

Max-Planck-Institut für Physik

(Werner-Heisenberg-Institut)

Frau A. Schielke
Föhringer Ring 6
D-80805 München
Germany

or via e-mail to schielke@mpp.mpg.de and skluth@mpp.mpg.de



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The Paul Scherrer Institute is with 1300 employees the largest research centre for the natural and engineering sciences in Switzerland and a worldwide leading user laboratory. Its research activities are concentrated on the three main topics of solid-state physics energy, environmental research and human health.

The work will be performed within the Ultra-cold Neutron (UCN) Physics Group which is part of the Laboratory for Particle Physics. UCN are used to study all known interactions, to search for new interactions, to test fundamental quantum mechanics and symmetries of nature. Our research is currently centered on the R&D for the new PSI UCN source and on an experiment to measure the neutron electric dipole moment (nEDM) at this source.

We are looking for a

Postdoctoral Fellow in ultra-cold neutron physics

Your tasks

- Contributions to the commissioning of the nEDM apparatus at the PSI UCN source
- Study of systematic effects in the nEDM measurement and data analysis
- Contributions to the further development of the nEDM apparatus
- R&D test experiments with ultra-cold neutrons

Your profile

- University degree with PhD in experimental physics or engineering
- Experience in the field of particle or nuclear physics, or neutron optics
- Practical knowledge in experimenting, electronics, programming and calculation methods
- Good communication skills in English
- You like to work in a highly motivated team and cultivate contacts to our international collaboration partners

For further information please contact:

Dr Geza Zsigmond, phone +41 (0)56 310 35 69, geza.zsigmond@psi.ch

Please submit your application to:

Paul Scherrer Institut, Human Resources, Ref. code 3204,
Thomas Erb, 5232 Villigen PSI, Switzerland or to: thomas.erb@psi.ch.
www.psi.ch

The Physics Department at Brookhaven National Laboratory seeks to fill an Assistant Physicist position. Requires a Ph.D. in physics with emphasis on experimental particle or nuclear physics. The candidate is expected to have demonstrated extraordinary capability with leadership roles in the field of particle physics. The candidate will participate in the activities of the group including the design of the Long Baseline Neutrino Experiment, especially the large water Cherenkov detector at DUSEL in South Dakota. There will be opportunity to participate in the Daya Bay reactor neutrino experiment in China. Participation in the MINOS experiment (Fermilab-Soudan) may also be possible. Travel to DUSEL, Fermilab, Minnesota and/or China should be expected. The candidate will work within the electronic detector group and will have broad associations with other groups in the laboratory and throughout the world to carry out his/her function. The Electronic Detector Group in the Physics Department currently has ten physicists at various career levels with major current responsibilities in neutrino physics and a long history of research in fundamental particle physics. Under the direction of S. Kettell, 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 # 14998.** Brookhaven National Laboratory is an equal opportunity employer committed to building and maintaining a diverse workforce.

CERN COURIER

ATTENTION RECRUITERS

**CERN Courier
now has a section on
job opportunities in
computing.**

To promote your computing vacancies contact Sarah Vokins,
e-mail sarah.vokins@iop.org; tel +44 (0)117 930 1196.

Advanced Energy Systems, Inc. (AES) is a small, high technology company with offices located in Medford, NY and Princeton, NJ working in the area of design and manufacture of particle accelerator systems and components for a variety of applications. US citizenship or permanent residency is preferred.

AES offers competitive salaries and a comprehensive benefits package including vacation, paid holidays, medical and dental insurance plans, and a 401K with company match and company contribution for retirement.

AES is seeking applicants' for the following positions:
(see www.cerncourier.com, www.brightrecruits.com and www.aesys.net for more details)

PHYSICIST – Princeton NJ

- Masters degree (Ph.D. Preferred) in engineering or physics.
- At least 5 years experience in positions of increasing responsibility.
- Highly competent in RF and beam dynamics analysis using state-of-the-art computer codes.

RF PHYSICIST – Medford, NY

- Masters degree in RF engineering, electrical engineering, or physics.
- At least 5 years experience in positions of increasing responsibility.

- Highly competent in 2-D and 3-D RF analysis using state-of-the-art computer codes such as ANALYST or Microwave Studio.

PROJECT ENGINEER – Medford, NY

- Masters degree in engineering or physics.
- 10 years experience in positions of increasing responsibility in design and manufacturing of technically complex components.

MECHANICAL DESIGN ENGINEER – Medford, NY

- Bachelors degree (Masters preferred) in mechanical engineering.
- 5 years experience in positions of increasing responsibility.

THERMO-STRUCTURAL ANALYST – Medford, NY

- Masters degree in engineering with emphasis in structures and/or heat transfer.
- 10 Years experience in positions of increasing responsibility.

RF TECHNICIAN – Medford, NY

- Associates degree or equivalent experience in RF electronics or accelerators.
- 5 years of relevant experience.

Applicants' requests for information should be sent to Sheila Sarmiento @ Sheila_sarmiento@mail.aesys.net



Durham University invites applications for up to four posts as

Lecturer

tenable within the Department of Physics, in association with the Institute for Particle Physics Phenomenology (IPPP).

Salary: £36532 - £43622 per annum



The successful applicants will have expertise in one or more of the following areas: beyond the standard model physics; electroweak and Higgs boson physics; flavour physics; particle building; Monte Carlo simulations; neutrino physics; model astrophysics and strong interactions. They will be expected to make a substantial contribution to the research activities of the IPPP and to undertake teaching and administrative duties as assigned by the Board of Studies of Physics. Applications from candidates with a strong record of engagement with experimental groups are encouraged.

The IPPP was founded in 2000 and has rapidly established itself as one of the world's leading institutes for research in particle physics. An outline of the current research programme and activities of the IPPP can be found at <http://www.ippp.dur.ac.uk>.

Further details of the post are available on the university website (<https://jobs.dur.ac.uk>) or telephone +44 (0) 191 334 6499; fax +44 (0) 191 334 6495.

Closing date: **8th January 2010**. Please quote reference number: **3461**

Informal enquiries, expressions of interest, or names of potentially interested parties should be sent as soon as possible, and in confidence, to: **Professor Nigel Glover, E.W.N.Glover@durham.ac.uk**.

TRAVAILLER A L'UNIVERSITE DE GENEVE

The **FACULTY OF SCIENCES, Geneva University - Switzerland**, invites applications for a position as

FULL OR ASSOCIATE OR ASSISTANT PROFESSOR in experimental particle physics

RESPONSIBILITIES: This full-time appointment will be for an experimental physicist with an outstanding international reputation in the field of **high energy physics**. The selected candidate will take important leadership responsibilities for a group, initially on the ATLAS experiment.

The post also involves teaching and seminar responsibilities at the undergraduate, graduate and postgraduate levels (6 or 4 hours per week depending on position), as well as administrative tasks at the Departmental, Faculty and University level.

REQUIRED DEGREE: Ph.D. or equivalent.

STARTING DATE: August 1, 2010 or as agreed.

Applications, including curriculum vitae, a list of publications, a short research plan and the names of 4 people who may be contacted, should be sent before **January 31, 2010**, to the Dean of the Faculty of Sciences, 30 Quai Ernest-Ansermet, CH-1211 Geneva 4, Switzerland, or by e-mail in one single file to Laure.Sollero@unige.ch, where further information concerning the job description and working conditions may be obtained.

Female candidates are particularly welcomed.



**UNIVERSITÉ
DE GENÈVE**

RECRUITMENT COMPUTING JOBS



Pendragon Information Systems are a recruitment consultancy that specialises in the provision of permanent and contract IT consultants throughout the UK and Europe.

Our client base ranges from FTSE 100 firms, financial institutions and major government departments through to not for profit organisations and boutique software development companies. Pendragon recruit throughout the IT Lifecycle and cover Senior Appointments, Project Management and Analysis, Software Development, Testing, Support, Administration and Service Delivery.

Our approach is to understand the demands of our clients business and create innovative recruitment solutions to best fit their need. This can include Recruitment Process Outsourcing, Onsite Consultancy, Campaign Management, Assessment Programmes and Psychometric profiling.

Whether you are an IT Manager looking to hire quality resource or an IT Professional looking for a contract or the next step in your permanent career we would be delighted to hear from you. For further information please contact us via www.pendragon-is.com



Three Postdoc Data Analysis Positions, Plant Accelerator, University of Adelaide, Australia

The Plant Accelerator at the Australian Plant Phenomic Facility at the University of Adelaide, South Australia — sometimes described as the CERN of biology — has 3 positions available for scientists to analyze the datasets measured with our LemnaTec conveyor system. All 3 scientists will initially be trained for 3 to 6 months at LemnaTec in Aachen, Germany, to become familiar with the hardware and software. (LemnaTec develops and produces image-processing hardware and software to take digital images of plants or other biological objects at different wavelengths, and then analyzes these images to measure visible parameters of the samples — e.g. colour, shape, size, architecture etc. — and correlate these data with experimental data such as genetic data.) This data will be utilized to accelerate pure and applied plant science research, for example biofuels and energy crops. For further information, see: <http://www.plantaccelerator.org.au>

After the initial training, two scientists will move to Adelaide, South Australia, and one will stay at LemnaTec in Aachen to perform further analysis.

The focus of these 3 postdoc positions is:

- ★ Administration of the LemnaTec system
- ★ Administration of the SQL database
- ★ Research and development of new image processing algorithms for analyzing the digital images

Most important is multidimensional correlation analysis of the measured image processing data with experimental and gene data.

Necessary skills:

- ★ Expertise in the analysis of large datasets and multidimensional correlation analysis
- ★ Expertise in the administration and programming of SQL databases
- ★ Microsoft and Linux C/C++/C#
- ★ English and German
- ★ Able to relocate to Aachen, Germany or Adelaide, South Australia

We are speaking about 3 full postdoc positions which are initially limited to 3 years but have a good chance of being extended after 3 years.

Salary is calculated according to the Australian University employment standard.

1 position HEO9 (ca. 120,000 AU\$ gross per year)
and 2 positions HEO8 (ca. 100,000 AU\$ gross per year)

The positions shall be staffed by January 2010.

Applicants should send their CV to Dr. Joerg Vandenhiertz - joerg.vandenhiertz@lemnatec.de.

The LemnaTec system used in research programs with BASF, Bayer CropScience, Pioneer/DuPont and Syngenta can be viewed at

http://www.lemnatec.com/filme/LemnaTec_GH_16-9.wmv

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