

RECRUITMENT

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Tenure-Track Faculty Position in Experimental High Energy Physics

The Department of Physics at the University of Virginia, located in Charlottesville, Virginia, invites applications for a tenure-track Assistant Professor position in experimental high energy physics. Under the terms of an agreement with the Fermi National Accelerator Laboratory in Batavia, Illinois (Fermilab) this position will carry teaching release time to enable the successful candidate to develop a strong research presence on new experiments that are planned for the intensity frontier. The appointment will begin August 25, 2010. Applicants must hold a doctorate in physics and be committed to student instruction at both the graduate and undergraduate levels. Prior experience in experimental particle physics is required. The University of Virginia experimental high energy group has a strong participation in the Mu2e and NOVA experiments at Fermilab. Candidates with interests in those experiments will receive special attention.

To apply, candidates must submit a candidate profile, cover letter, a curriculum vitae that includes your publication record, a statement of teaching philosophy, and a statement of research interest; both statements must be one page minimum or two pages maximum, through jobs@UVA (<https://jobs.virginia.edu>). The job posting for this position can be located under posting number 0604396.

Candidates are required to have four letters of reference sent directly to phys-hep-exp-pos@Virginia.EDU or Experimental HEP Search, Department of Physics, University of Virginia, McCormick Road, P.O. Box 400714, Charlottesville, VA 22904-4714.

Questions regarding the application process should be directed to Tammie Shifflett, tms4t@Virginia.EDU, 434-924-6565.

Applications received on or before December 31, 2009 will be given priority consideration; however, the position remains open until filled. For information on our department, please visit our website at <http://www.physics.virginia.edu>.

Women and members of underrepresented groups are encouraged to apply. The University of Virginia is an Equal Opportunity/Affirmative Action Employer and is strongly committed to building diversity within its community.

Divisional Fellow – Experimental Particle Physics

The **Physics Division at Lawrence Berkeley National Laboratory (LBNL)** is seeking a scientist with a record of accomplishment, creative ability and outstanding promise in the field of experimental particle physics. The **Divisional Fellow** position is a five year appointment with expectation of promotion to career Senior Scientist. The Divisional Fellow appointment is similar to a tenure track junior faculty position at a university. Appointment directly to Senior Scientist may be considered in exceptional circumstances.

The current program in experimental particle physics has two major thrust areas: ATLAS at the LHC and the study of neutrino oscillations using reactor neutrinos (Daya Bay). We are beginning programs on the physics of neutrinos and rare processes related to the planned high-intensity beams at Fermilab.

Candidates should have several years of experience in experimental particle physics beyond Ph.D. Experience in hadron collider physics or neutrino research desirable.

Interested individuals should apply online at: jobs.lbl.gov. Search for job #23620. Applicants must also email their CV, publication list, and statement of research experience and interests in pdf format and have at least five letters of recommendation (no more than one from an LBNL reference) sent to: epfellow09@lbl.gov.

For full consideration, applications should be received by 18 December, 2009.

Berkeley Lab is an affirmative action/equal opportunity employer committed to the development of a diverse workforce.



Science and Technology Research Center (CaSToRC) - CaSToRC-09-04

We have two Computing Support Specialist positions available. These positions will provide computational expertise and technical support for the development of high performance computing facilities, data repositories and web and video collaboration services.

Required Education and Experience:

- BS degree (MS degree preferred) in a computer science, natural science, or engineering field required. Alternative degree fields will be considered if accompanied by equivalent experience (depending on nature and depth of experience as it relates to the current project).
- At least 2 years of experience with at least two of the above mentioned areas.

In addition, for a Systems Administrator role, successful candidates will need to have:

- At least 2 years of experience in Unix Systems Administration
- At least 2 years of experience in the hardware maintenance of computer systems
- Strong knowledge of computer systems and programming with at least 2 years of programming experience with one or more of the following: C, C++, Fortran.

Computational Scientist to work in atmospheric and climate modelling Computation-based Science and Technology Research Center (CaSToRC) - CaSToRC-09-05

We are seeking an outstanding computational scientist to participate in the development of software and algorithms for atmospheric and climate modeling. The successful candidate will work with the research group of Prof. Jos Lelieveld that pioneers research in Climate Change. S/he will be engaged in projects involving challenging algorithmic problems and analysis techniques for large complex data sets.

Required Education and Experience:

- The candidate must have a Ph.D. in physics, computer science, or related scientific discipline. Experience with numerical methods, parallel algorithms, software development for High Performance
- Computer systems and strong programming skills are required. Experience in climate modeling is a plus but it is not required.

For further information, the full job descriptions and salary details please contact castorc.info@cyi.ac.cy.

For full consideration, interested applicants should send a CV, a sample of their work and the names of three contactable referees by e-mail to HR@cyi.ac.cy by the following dates:

CaSToRC-09-04 - 30th Nov 2009

CaSToRC-09-05 - 30th Nov 2009

Recruitment will continue until the positions are filled.



The **Heidelberg Graduate School of Fundamental Physics (HGSFP)** at the Department of Physics and Astronomy at the University of Heidelberg, a school of the German Excellence Initiative, invites applications for

Doctoral Fellowships

in its core areas of modern fundamental physics: (a) Fundamental Interactions and Cosmology, (b) Astronomy and Cosmic Physics and (c) Quantum Dynamics and Complex Quantum Systems. Thesis research topics cover areas such as experimental and theoretical astrophysics, cosmology, accelerator based particle physics, precision measurements in physics, study of quantum systems – many body as well as small systems, low as well as high temperature physics, atomic, molecular and optical physics, mathematical physics and string theory. The HGSFP combines doctoral projects at the forefront of international research in the areas mentioned above with a rich and thorough teaching program. Further information can be found on the School's web site: <http://www.fundamental-physics.uni-hd.de>.

The branch Astronomy & Cosmic Physics is the International Max Planck Research School (IMPRS) for Astronomy and Cosmic Physics at the University of Heidelberg (<http://www.mpia.de/imprs-hd>). Students accepted into the Graduate School will automatically be members of the IMPRS-HD and conversely. Membership in the IMPRS for Quantum Dynamics in Physics, Chemistry and Biology (<http://www.mpi-hd.mpg.de/imprs-qd>) is envisaged if appropriate.

Highly qualified and motivated national and international students are invited to apply. Applicants should hold a Master of Science or equivalent degree in physics. At equal level of qualification, preference will be given to disabled candidates. Female students are particularly encouraged to apply.

Applications for fellowships should arrive by December 13, 2009. Applicants have to initiate their application registering via a web form available at <http://www.fundamental-physics.uni-hd.de/fellowships>.



University
of Glasgow

Department of Physics & Astronomy

Lecturer

£31,513 - £35,469 / £38,757 - £44,930

You will pursue a world-class research programme relevant to theoretical elementary particle physics, with emphasis on collider phenomenology, broadening and strengthening the existing research portfolio in this area. Your work should enhance the linkages to the experimental programme (www.gla.ac.uk/physics/ppe/). There are also extensive opportunities to collaborate with other theorists and experimentalists in Scotland under the auspices of the Scottish Universities Physics Alliance (www.supa.ac.uk/). You should be able to teach undergraduate physics and possibly astronomy at all levels and postgraduate theoretical particle physics.

Informal enquiries relating to this post may be directed to Professor Christine Davies; email c.davies@physics.gla.ac.uk telephone + 44 (0)141 330 4710.

Further particulars and background information are also available from the PPT group web pages: www.physics.gla.ac.uk/ppt/ This post is available as either a grade 7 or grade 8 depending on qualifications and experience.

Apply online at www.glasgow.ac.uk/jobs

If you are unable to apply online please contact us on 0141 330 3898 for an application pack quoting Ref 00047-6.

Closing date 16 November 2009.

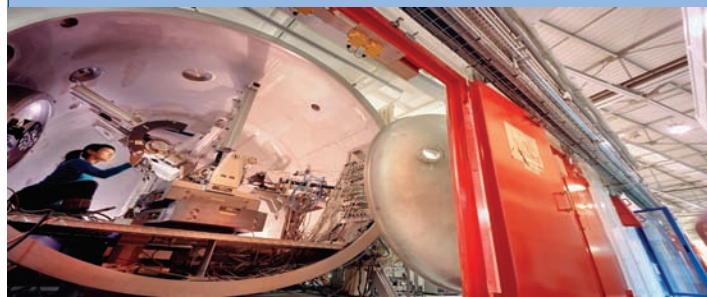
Interviews will be held over 7 and 8 January 2010.

The University is committed to equality of opportunity in employment.
The University of Glasgow is a registered Scottish charity, number SC004401.
www.glasgow.ac.uk



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NATIONAL TAIWAN UNIVERSITY
Leung Center for Cosmology
and Particle Astrophysics

Distinguished Junior Fellowship

The Leung Center for Cosmology and Particle Astrophysics (LeCosPA) of National Taiwan University is pleased to announce the availability of several Post-Doctoral or Assistant Fellow positions in theoretical and experimental cosmology and particle astrophysics, depending on the seniority and qualification of the candidate. Candidates with exceeding qualification will be further offered as LeCosPA Distinguished Junior Fellows with competitive salary.

LeCosPA was founded in 2007 with the aspiration of contributing to cosmology and particle astrophysics in Asia and the world. Its theoretical studies include dark energy, dark matter, large-scale structure, cosmic neutrinos, and quantum gravity. The experimental projects range from CMB detection in Hawaii, GZK-neutrino detection in Antarctica, to infrared telescope in Tibet.

These positions are available on August 1, 2010. Interested applicant should email his/her application with curriculum vitae, research statement, publication list and three letters of recommendation before December 31, 2009 to

Ms. Ting-Yi Wu tyw@phys.ntu.edu.tw

For more information about LeCosPA, please visit its website at
<http://lecospa.ntu.edu.tw/>

Three letters of recommendation should be addressed to

Prof. Pisin Chen, Director

Leung Center for Cosmology and Particle Astrophysics

National Taiwan University

cerncourier.com

Foundation for Fundamental Research on Matter

The Foundation for Fundamental Research on Matter (FOM) promotes, co-ordinates and finances fundamental research of international standard/calibre in The Netherlands. It is an autonomous foundation responsible to the physics division of the national research council NWO. FOM employs about 900 people, primarily scientists (including PhD students) and technicians, who work at FOM research institutes and research groups at universities. FOM is chiefly financed by the NWO (Netherlands Organisation for Scientific Research) Governing Board and NWO Physics and can be considered as the Physics Division of NWO. In addition to the government funds of NWO, FOM acquires financial means from the European Union and through collaboration with the industry and universities. For additional information see www.fom.nl.



Nikhef is the national institute for subatomic physics in the Netherlands with about 240 employees: 145 physicists, 75 engineers / technicians and 20 employees for General support. Based in Amsterdam, it is a collaboration between four universities and the funding agency FOM. The institute coordinates and supports major Dutch activities in experimental subatomic physics, among them the ATLAS, LHCb and Alice experiments at the Large Hadron Collider at CERN and several astroparticle physics projects, such as the ANTARES neutrino telescope, the Auger cosmic-ray observatory and the Virgo gravitational wave interferometer. Nikhef has in addition a theory department.

Nikhef has an opening for a

staff scientist

with tenure in the heavy-ion physics programme.

Requirements

You have a PhD and an excellent research and publication record in high-energy physics, preferably in relativistic heavy-ion physics. You will join the activities of the heavy-ion group within the ALICE experiment. You are creative, competent in modern information technology, able to establish an active research line including supervision of PhD students and, able to communicate developments through seminars as well as public lectures. You have knowledge in data analysis and/or detector development in high energy physics.

Information

Further information can be obtained from the leader of the Alice group, prof. dr. Thomas Peitzmann (phone +31 30 2532512 or by email t.peitzmann@uu.nl) or from the chairman of the selection committee, dr. L.W. Wiggers, (phone +31 20 5925058 or by email p63@nikhef.nl). Job interviews are foreseen in week 4 and 5, 2010.

Applications

Candidates are invited to send their application, including curriculum vitae, list of publications as well as three letters of reference before December 15th, 2009 to Nikhef, att. Mr. T. van Egdom, P.O. Box 41882, NL-1009 DB Amsterdam, or by email to Teus.van.Egdom@nikhef.nl.

Please quote vacancy nr: 090892

All qualified individuals are encouraged to apply.



Cornell Laboratory for
Accelerator-based Sciences
and Education (CLASSE)

Postdoctoral or Research Associate (Photocathode Scientist)

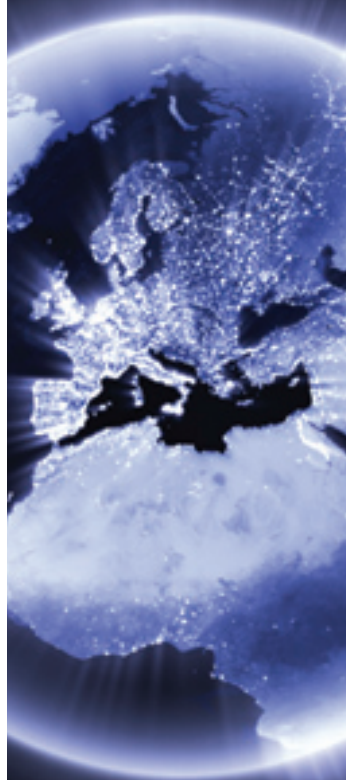
The Cornell Laboratory for Accelerator-based Sciences and Education (CLASSE) seeks a photocathode researcher to work on photocathode materials for high brightness photoemission electron sources. The successful candidate will play a key role in establishing the dedicated photocathode laboratory and will conduct research aimed at understanding the physics of high quantum efficiency photocathodes for production of bright electron beams, their design, characterization, and operation in a high performance accelerator environment. The position is either Postdoctoral or Research Associate, depending on the applicant's qualifications and experience. A Ph.D. in physics, material science, or chemistry is required. Applicants should have extensive experience with UHV systems and be well-versed with surface analysis techniques.

Refer to <http://www.lepp.cornell.edu/JobsAtLEPP.html> for full job description. Electronic submissions and inquiries may be addressed to search-CLASSE@cornell.edu.

Cornell University is an equal opportunity, affirmative action educator and employer.

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**Science & Technology
Facilities Council**

The Science & Technology Facilities Council (STFC) is the UK's provider of large scale inter-disciplinary research infrastructures and their supporting technologies, which enable UK researchers to investigate the world we live in and understand the building blocks of the universe. Our Daresbury Science & Innovation Campus in Cheshire is home to world-leading science including nuclear physics, accelerator research, high performance computing and technology.

Laser Physicist/Engineer

3 year fixed term post-doctoral appointment

£26,610 - £29,566 plus a Recruitment & Retention Allowance of up to £3,000 plus Relocation package

Based in Cheshire

Ultrafast lasers are now being utilised in exciting experiments in conjunction with high performance charged particle beams. The Accelerator Science and Technology Centre (ASTeC) wishes to strengthen its core expertise in a variety of such areas. One example is in the development of unprecedented timing and synchronisation systems, capable of better than 10 femtosecond stability. Solutions based on mode-locked fibre lasers currently represent the leading technologies.

The Accelerator Science and Technology Centre (ASTeC) seeks to develop world leading optical timing systems and we are looking for someone who can take on responsibilities for applications on our ALICE Test Accelerator, utilising mode-locked fibre oscillators and stabilised links. There will also be wider opportunities for R&D studies on advanced optical techniques applied to diagnostics challenges and other particle beam interaction projects.

You will work closely with the ALICE research team and also in funded international programmes. Whilst postgraduate experience in optical systems is essential and their application to particle accelerators is desirable, training in the latter will be available.

For more detailed information about the roles and how to apply: please visit <https://www.scitech.ac.uk> telephone 01925 603954 or e-mail recruit@dl.ac.uk quoting reference number VND436/09.

Closing date for applications is 20 November 2009.

NO AGENCIES

STFC is an equal opportunity employer and promotes diversity in its workforce. We are particularly keen to consider applications from groups currently underrepresented in the workforce and we are positive about disability.

www.scitech.ac.uk



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

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e-mail sarah.vokins@iop.org; tel +44 (0)117 930 1196.

LEON M. LEDERMAN Postdoctoral FELLOWSHIP

The Fermi National Accelerator Laboratory (Fermilab) invites applications for the Lederman Postdoctoral Fellowship in experimental particle physics. The Lederman Fellow will have a choice of opportunity within the broad program of experimental research at Fermilab which includes research at the Tevatron and the LHC, neutrino physics, particle astrophysics, and experiments at the Intensity Frontier. In recognition of Leon Lederman's outstanding career in research and his commitment to the teaching of physics, we are looking for candidates who have demonstrated exceptional ability in research and who also wish to participate in physics outreach for a fraction of their time.

The Lederman Fellowship appointment is normally for three years with a possible extension. Candidates should either have obtained a Ph.D. in experimental particle physics, astrophysics, or a closely related field, after November 1, 2008, or should expect to obtain a Ph.D. in the same fields by June 2010.

Applications including a curriculum vitae, a description of prior research and research interests, and details of experience and interest in outreach, should be sent to LMLFAPP@fnal.gov. Applicants should also arrange for three or four references to be sent to the same address. Applications and their references should be received by November 23, 2009.



Fermilab is an Equal Opportunity Employer – M/F/D/V

**University of Bern
Faculty of Science**



Applications are invited for an
open rank professorship in

Theoretical High-Energy Physics

**UNIVERSITÄT
BERN**

opening February 1, 2012, at the Albert Einstein Center for Fundamental Physics, Institute for Theoretical Physics, University of Bern, Switzerland. The position can be filled either at the Full Professor or at the tenure track Assistant Professor level. Candidates should have a strong research record in quantum field theory applied to particle physics, aiming at a detailed understanding of the strong interaction, the standard model, or its extensions, in particular using non-perturbative methods. The current research activities at the institute include effective field theories, non-perturbative quantum field theory, the standard model, flavor physics, supersymmetry, gravity, and string theory. The successful candidate is expected to build up a strong research group, to be experienced in acquiring external funding, and to actively participate in the teaching and supervision of Bachelor and Master students, as well as of Ph.D. students in the graduate school.

The University of Bern particularly encourages women to apply for this position.

Applications including a curriculum vitae, a publication list, copies of the most important publications, a brief outline of past and future research, and a summary of obtained external funding should be sent to **Prof. U. Feller, Dean of the Faculty of Science, University of Bern, Sidlerstrasse 5, CH-3012 Bern, Switzerland, by November 15, 2009.**

For further information you may contact **Prof. U.-J. Wiese, Institute for Theoretical Physics, University of Bern, Sidlerstrasse 5, CH-3012 Bern, Switzerland, e-mail: wiese@itp.unibe.ch, www.itp.unibe.ch**

RECRUITMENT COMPUTING JOBS



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 Vandenhiert - joerg.vandenhiert@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



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>



CSCS
Swiss National Supercomputing Centre

System Engineer for Grid Computing and HPC Systems - Switzerland - Manno/Ticino

The HPC Co-Location Services (HCS) division of CSCS, the Swiss National Supercomputing Centre, provides highly specialized HPC services to external customers like the Swiss Federal Meteorological Survey "MeteoSwiss" or the Swiss Institute of Particle Physics (CHIPP). CSCS is therefore looking for a motivated System Engineer for Grid Computing and HPC Systems.

Together with CHIPP you will be part of one of the largest and most exciting experiments in a search for the origin of matter with the Large Hadron Collider LHC at CERN. CSCS offers you a dynamic, exciting field, the development of which you can profoundly influence. Considerable freedom of action, further training is encouraged. You will have the possibility to participate to international conferences and build your own network of professional contacts. In the midterm you will also have the chance to contribute to the other systems run by the HCS division, thus getting a broad overview of different HPC technologies.

Skills

You are ready to take responsibility for the cluster used by CHIPP and ready to cooperate with the international partners of the computing grid for the Large Hadron Collider experiment at CERN. Requirements are:

- Demonstrated experience in administering Linux clusters and servers
- Experience with cfengine or similar tools for cluster administration
- Experience with the scripting languages bash, Perl and Python
- Willingness to continuously learn and update with latest skills
- Problem solution oriented personality, capability to work under pressure
- Ability to work in teams and in international environments
- Fluency in English as working language

Highly desired is experience with the gLite Grid middleware, the dCache storage management system, the PBS batch system, the ARC Grid middleware as well with Nagios and maintaining Nagios configuration and plugins. Familiarity with UNIX systems programming in the C language ("strace" is your daily-use Swiss Army knife) would be a further advantage as well as knowledge of Systems administration of Solaris 10 and ZFS, familiarity with Tomcat and Java-based webservices and knowledge of Italian and/or German.

Notes

The position is open starting November 1, 2009 and is initially limited to a period of two years. Working place is Manno in the canton of Ticino, one of the most attractive places in Switzerland.

Please submit your letter of introduction and CV online at www.jobs.ethz.ch.

For additional information please contact Dr. Michele De Lorenzi, delorenzi@cscs.ch, phone +41 91 610 82 08.