

# Recruitment

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TEL +44 (0)117 930 1264 FAX +44 (0)117 930 1178 E-MAIL SALES@CERNCOURIER.COM  
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## Position of the Director General for the Cherenkov Telescope Array Observatory

The Cherenkov Telescope Array Observatory (CTAO) is searching for a Director General to lead the organization. The Director General has the overall responsibility for the management of the organization in charge of the construction and future operation of Cherenkov Telescope Array Observatory. The Cherenkov Telescope Array (CTA) is a multinational project to observe extremely high-energy photons from the Universe with greatly improved sensitivity than has been done previously. On the site of the Observatorio del Roque de los Muchachos on La Palma (Canaries, Spain) and at the European Southern Observatory in Chile about 120 telescopes will be installed, in order to measure the Cherenkov radiation produced by the atmospheric particle showers initiated by cosmic photons.

About 200 research institutions from 32 countries are involved in designing and prototyping this large-scale research infrastructure. While the construction of the infrastructure on the sites and all software development is to be managed centrally, most of the telescopes and other scientific components will be delivered as in-kind contributions by interested institutions from all over the world. According to present plans the majority of construction is scheduled to be complete by 2024 within a budget of 400 M€. The observatory is designed for 30 years of operational lifetime. The Cherenkov Telescope Array Observatory headquarters for operation and administration will be set-up in Bologna for the final legal entity. It will be supported by a Science Data Management Centre in Zeuthen near Berlin. Due to the distributed nature of this Research Infrastructure, regular travelling will be needed.

The current transition to the implementation phase is driven by a core of countries acting as the shareholders of the Cherenkov Telescope Array Observatory limited liability company through which the project is presently governed and funded.

We are seeking an internationally renowned science manager with several years of experience in successfully managing large Research Infrastructures or at least large international construction projects. Experience in the relevant experimental areas of CTA would be welcome in addition. He/She will be

well experienced in negotiations with international partners and with funding agencies and ministries in particular. Further requirements include: outstanding leadership and communication skills, excellent knowledge of English, competence in contractual and economic affairs.

The Director General shall develop a team spirit that will secure the immediate and long-term success of Cherenkov Telescope Array Observatory. He/she will lead a Management Group that consists during construction of the Administrative Director, the Project Manager and the Director of Science Management. In future a Director of Operation will be also be a member of the Management Group. The Director General shall ensure and develop a suitable and optimal organisation for the transition from the construction to the operational phase of the Cherenkov Telescope Array Observatory. He/she shall also ensure the Cherenkov Telescope Array Observatory's successful transition from the current to the final legal entity. An important responsibility of the Director General will be the management and further development of the distributed CTA-facility with its four sites.

CTAO is an equal opportunity employer and especially encourages applications from women. Persons with disabilities will be given preference over other applicants with comparable qualifications.

The position is initially limited to a period of five years.

Applications should be submitted by September 1st, 2017 to the Chair and the Vice-Chair of the CTA-Council:

**Dr. Paolo Vettolani and Dr. Beatrix Vierkorn-Rudolph**  
**Chair and Vice Chair of the Council of the CTAO gGmbH**  
**Saupfercheckweg 1**  
**D-69117 Heidelberg, Germany**

or via e-mail:

**vettolani@inaf.it** and **Vierkorn-Rudolph@t-online.de**

For further information, please contact **Dr. Vierkorn-Rudolph (Vierkorn-Rudolph@t-online.de)**.



Facility for Antiproton and Ion Research



Helmholtzzentrum für Schwerionenforschung GmbH

GSI Helmholtzzentrum für Schwerionenforschung operates a unique large-scale accelerator for ions. Researchers from around the world use this facility for experiments which help them make fascinating discoveries concerning the building blocks of matter and the evolution of the universe. In addition, they continually develop novel applications in medicine and technology. In the coming years the new international accelerator facility FAIR (Facility for Antiproton and Ion Research), one of the largest research projects worldwide, will be built at GSI.

We are looking for a

## Head of Electronics for Experiment (m/f)

Reference No: 6220-17.48

### Your duties:

You will lead the department for electronics for experiment of GSI GmbH with in total 30 employees plus students. The department conducts a broad portfolio spanning over the full range of electronics activities like analog and digital electronics, system design, ASIC development, embedded software (e.g. FPGA), data acquisition (DAQ) and analysis, control systems as well as layout, assembly and rapid prototyping. You work closely with the international experiment collaborations at GSI and FAIR in a project oriented structure. You will strategically develop the department to support existing and future instrumentation for experiments at GSI and FAIR.

### Your Profile

We are looking for a person with the following qualification:

- University degree in Electronics or Physics, preferably PhD
- Outstanding expertise in modern front-end electronics for nuclear and particle physics experiments
- Several years of work experience in a supervising position in electronics; ideally acquired in a comparable organization
- Professional experience with stringent real-time requirements / low-latency systems / low-noise systems
- Excellent written and oral English language skills. Good German language skills will be an asset
- Goal-oriented and analytical mindset, strong skills in people management and resource handling.

Please provide us with a short summary on your vision on the future in experiment electronics in the framework of GSI and FAIR.

We are offering an interesting and varied professional activity in an international reputable research institute. We offer an indefinite contract. Salary is equivalent to that for public employees as specified in the collective agreement for public employees (TVöD Bund).

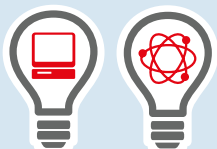
Further information about FAIR and GSI is available at [www.gsi.de](http://www.gsi.de) and [www.fair-center.eu](http://www.fair-center.eu).

GSI supports the vocational development of women. Therefore, women are especially encouraged to apply for the position.

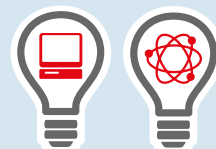
Severely disabled applicants will be given preference to other applicants with equal qualifications.

Please send your complete application including the usual documents, your salary expectation and the above **Reference No.** by **July 31<sup>st</sup> 2017** to:

GSI Helmholtzzentrum für Schwerionenforschung GmbH  
Abteilung Personal  
Planckstraße 1  
64291 Darmstadt  
or by E-Mail to: [bewerbung@gsi.de](mailto:bewerbung@gsi.de)



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**Northern Illinois  
University**

## OPPORTUNITY FOR TENURE-TRACK ASSOCIATE and ASSISTANT PROFESSORSHIP APPOINTMENTS IN ACCELERATOR PHYSICS (JOINTLY WITH FERMILAB)

The Physics Department of Northern Illinois University is home to world-class faculty in accelerator, detector and particle physics. In a joint initiative with Fermi National Accelerator Laboratory (Fermilab), it has established a Cluster of Research Excellence in accelerator science and beam physics since 2014. Faculty members have national and international research and educational collaborations with Fermilab, Argonne National Laboratory (ANL), SLAC, CERN, DESY and USPAS/ CERN Accelerator Schools. Funded by the National Science Foundation, the Department of Energy and other institutional and national agencies, the Accelerator and Beam Physics faculty members in the cluster work at the theoretical and experimental frontiers, with full access to special purpose laboratories and advanced accelerator test facilities at NIU and Fermilab (e.g. NIU High Brightness Electron Source laboratory in IARC and Fermilab FAST/IOTA testbed). The research cluster aims at enabling "discovery-class" science driven by charged particle beams and associated advanced techniques/ technologies of lasers, bright electron and ion sources, nano-material structures, superconductivity, microwave cavity electrodynamics, nonlinear dynamics, electrodynamic and optical control of intense charged particle, atomic and molecular beams. The R&D is directed towards developments in particle physics and related disciplines of cosmology, material and life sciences and their applications to societal grand challenges of energy, environment, health and security.

Working seamlessly with the outstanding accelerator and technology research staff at Fermilab and Northern Illinois Centre for Accelerator and Detector Development (NICADD), unique collaborative research opportunities exist to contribute to large scale national and international accelerator activities such as the PIP-II at Fermilab for the development of the long-baseline neutrino facility in support of the international DUNE experiment, TeV-scale collider developments world-wide including the LHC and its upgrade and the FCC at CERN, "precision" experiments e.g. "g-2", "Mu-2-e" etc. at Fermilab, anti-matter related experiments at CERN, as well as cutting edge innovative research in laboratory-scale experiments to investigate the "dark" sector of the vacuum.

**The cluster seeks appointment of two tenure-track faculty members in accelerator physics, jointly with Fermilab, at Associate/Assistant Professor levels as soon as possible. Aspiring candidates, with a PhD degree in Physics or equivalent and relevant post-doctoral experience beyond, should contact Professor Swapan Chattopadhyay, President's Professor and Director of Accelerator Research, NIU (schaterji@niu.edu) and Distinguished Scientist, Director's Senior Leadership Team, Fermilab (swapan@fnal.gov) for further details and send early expressions of interest and professional background information in advance before August 15, 2017. Candidates from historically underrepresented communities are especially encouraged to apply. A detailed job posting with specific directions for applications will be announced online and selected journals soon.**

## Chair for Experimental nuclear and particle physics at Vilnius University, Lithuania

Vilnius University is seeking an excellent scientist to fill a leading position in the Faculty of Physics. The successful candidate is expected to build a research team to carry out studies in the field of experimental particle physics, and establish a strong connection to CERN. She/he is also expected to work in close collaboration with other research groups at Vilnius University, with the aim to increase the level of cooperation between Lithuania and other international scientific and academic institutions, and with particular attention to Lithuania-CERN cooperation.

Vilnius University has joined CERN RD collaborations in 2002 and the CMS experiment in 2007. Previous participation in one of the major experiments at the Large Hadron Collider at CERN (ALICE, ATLAS, CMS or LHCb) will be considered an advantage.

Vilnius University is the oldest and most comprehensive university in Lithuania. According to "QS World University Rankings 2016-2017", it is among top 500 universities in the world. The academic staff consists of 1350 employees (250 of them are professors) and around 20,000 students, including 3,600 graduate and 900 doctoral students.

The research laboratories of the Faculty of Physics have premises in the National Centre of Physical and Technological Sciences in Sunrise Valley ("Saulėtekis") since 2016. The Valley is the largest and most advanced base for physical, chemical and life sciences and for technology in Lithuania and the Baltic states. The lecture rooms and the educational laboratories at the Faculty of Physics, the largest center of physics studies in Lithuania, are situated nearby.

A Chair position is equivalent to a full professor position. The incumbent is expected to fulfill the requirements corresponding to the recommended European competences for a leading (R4) or, at least, an established (R3) researcher.

Candidates must have been trained at international particle physics laboratories and leading national collaborating institutions, with expertise in modern experimental particle physics. They must demonstrate a proven record in securing significant research funding/budgets/resources and experience in managing and leading research projects.

Applications are invited from candidates of any nationality and gender. Citizens of non-EU countries will need to fulfil the requirements for obtaining a work permit in Lithuania. The successful candidate must take residence in Vilnius.

**Chair's mission:** • Coordinate Lithuania's research activities in theoretical and experimental high energy physics, and in materials and computer sciences and medical applications relevant to CERN research fields; • facilitate the involvement of researchers at Vilnius University into the programmes and experiments conducted at CERN; • organize teaching and training of students and young researchers in particle physics, particle detector techniques, data processing and related fields; • raise the public awareness for fundamental physics such as the current understanding of the Universe and its origin in a form that is suitable for a broad audience.

**Full details of the Chair's duties will be provided upon request.**

**The successful candidate will be entitled to:** • a separate office; • premises to establish her/his own laboratory, if the existing infrastructure does not match the needs, within the limits of the Centre's financial possibilities; • Salary Range: negotiable and depending on experience.

The applications should be sent to VU Directorate of Personnel [zis@cr.vu.lt](mailto:zis@cr.vu.lt) **The deadline: 10 September, 2017.**

A cover letter should include a request to participate in the contest and should be addressed to the Rector of Vilnius University.

Also, a description of academic activities together with a list of scientific publications, curriculum vitae, an outline of the research plan and any other additional documents allowing to objectively evaluate the qualifications of the applicant.

The letters of support from senior scientists with an established track record in high-energy nuclear and particle physics (min 3, max 6) should be sent directly to Vilnius university ([zis@cr.vu.lt](mailto:zis@cr.vu.lt)).



# Imagine taking part in one of the largest scientific experiments in the world.

People at CERN are driven by a shared goal, a single purpose. They want to achieve the impossible, to do what's never been done before. Everyone here strives to be the best they can be, true specialists and industry "firsts" are created regularly – not just in the world of physics. The engineering and technical skills needed to make the experiments succeed are as world-class as the science behind them.

If you're a student, a graduate, just starting your career or an experienced professional; if you're interested in joining our technical or support teams or if you're an engineer or professional in any area from mechanics to accounting, this is more than an opportunity to start or develop your career: it's an opportunity to develop knowledge and science on a global scale.

In fact, it's an opportunity like nowhere else on Earth.  
**cern.ch/jobs. Take part!**



HR  
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Institute of Physics ASCR, v. v. i., Na Slovance 2, 182 21 Praha 8

[info@eli-beams.eu](mailto:info@eli-beams.eu) | [www.eli-beams.eu](http://www.eli-beams.eu)

The ELI (Extreme Light Infrastructure) Project is an integral part of the European plan to build the next generation of large user and research facilities. ELI-Beamlines, as a cutting edge facility, is currently being constructed in Prague, Czech Republic. ELI will provide for both fundamental and applied research sources (beamlines) of energetic photons and charged particles accelerated or generated in laser-driven plasma under extremely high intensities of electromagnetic fields.

The theory and simulation group wants to reinforce their activities in the field of macroscopic laser-plasma interaction and its simulation. This is of importance to pre-pulse physics for high- power laser-matter interaction as well as for inertial confinement fusion.

The work is supposed to prepare and accompany experiments planned at international high- intensity laser facilities and help to define the research program for ELI-Beamlines.

In our team we therefore have the following position available:

## Junior scientist for macroscopic laser-plasma interaction

### Job description:

- Macroscopic simulations of laser-plasma interaction are essential for a detailed understanding of the underlying physics on macroscopic spatial scales and temporal scales
- This requires the development of accurate models for transport processes of particles and photons, correct laser absorption models and accounting for possible backscattering.
- The work will require to develop these new models in collaboration with other groups locally and internationally and to incorporate them in numerical simulation tools.

### Requirements:

- PhD in theory/simulation of hot plasmas
- Experience with simulation work and code development
- Good analytical skills
- Very good working knowledge of English
- Previous experience in laser-plasma interaction studies would be a plus
- Experience with one or more programming languages (C, C++, Fortran)

### Job conditions:

- The opportunity to participate in this unique scientific project
- Career growth, professional education
- Competitive and motivating salary
- 5 weeks of holiday and other employee benefits

Applications, containing CV, cover letter, contacts of references, and any other material the candidate considers relevant, should be sent to Mrs. Jana Ženíšková, HR specialist ([jana.zeniskova@eli-beams.eu](mailto:jana.zeniskova@eli-beams.eu), +420 - 601560322). Please include the following text in your cover letter, to allow us to process your personal details:

*I agree that, according to the decree 101/2000 coll. (Czech Republic), my personal details sent to FZU AV CR, v.v.i., Na Slovance 2, 18221 Praha 8, Czech Republic can be used for the purpose of obtaining employment and management of database of employment candidates. This permission is given for the period of one year and can be at any time withdrawn by giving a notice in writing.*



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