HUMBOLDT-UNIVERSITÄT ZU BERLIN

Research fellow (m/f/d) in the field of optical metrology and fundamental physics with 75 % part-time employment (limited to approx. 4 years) - E 13 TV-L HU
Job ID: AN/309/24
Faculty of Mathematics and Natural Sciences - Department of Physics
Application until: 27.12.2024

We are looking for a research fellow / Ph.D. student (m/f/d) to develop and perform experiments to test the isotropy of spacetime and thus the foundations of Einstein´s theory of Special Relativity.

The Optical Metrology Group at HU Berlin is one of the world leaders in performing tests of local Lorentz invariance and the isotropy of light propagation using (cryogenic) optical resonators. For this, we have a unique facility utilizing ultra-high precision turntables for the controlled rotation of various experimental setups, including such operating at liquid helium temperature.

Job description:

- scientific service in research in the Optical Metrology Group
- perform a modern Michelson-Morley experiment testing the isotropy of light propagation using cryogenic optical and / or microwave resonators
- develop and implement a new experiment testing other aspects of the isotropy of spacetime
- work closely with postdoctoral fellows, other doctoral candidates and Master students
- present research results in international journals and conferences
- tasks for personal scientific qualification (doctoral degree / Ph.D.)

Requirements:

- completed scientific university education (master or similar) in physics (or in a related field with appropriate specialization)
- good team spirit and ability to work effectively in a collaboration

Beneficial qualification:

- general laboratory skills (especially: optics, opto-mechanics, opto-electronics, RF-electronics)
- skills in theoretical physics and statistical analysis (to conceive and interpret experiments)
- experience in the implementation and use of cryogenic systems and experiments
- good knowledge of analog and digital electronics
- programming skills (preferably with experience in Python, Labview, Mathematica)
- experience in computer aided design (preferably Autodesk)
- proficiency in German
- gender and diversity sensitivity

Application to
Please send your application (including cover letter, a complete curriculum vitae and relevant certificates), referencing the **Job ID AN/309/24** to Humboldt-Universität zu Berlin, Faculty of Mathematics and Natural Sciences, Department of Physics, Prof. Achim Peters (located: Newtonstr. 15), Unter den Linden 6, 10099 Berlin or preferably in electronic form as a single PDF file to **achim.peters@physik.hu-berlin.de**.

The Humboldt-Universität zu Berlin is seeking to increase the proportion of women in research and teaching, and specifically encourages qualified female scholars to apply. Severely disabled applicants with equivalent qualifications will be given preferential consideration. People with an immigration history are specifically encouraged to apply. Since we will not return your documents, please submit copies in the application only.

Data protection information on the processing of your personal data in the context of the tender and selection procedure can be found on the homepage of Humboldt-Universität zu Berlin: https://hu.berlin/DSGVO.

Please visit our website www.hu-berlin.de/stellenangebote, which gives you access to the legally binding German version.