

**Research fellow (m/f/d) in the field of Optical Metrology with expected fulltime employment - E 13 TV-L HU (third-party funding limited until 30.09.2027)**

Job ID: DR/133/24

**Faculty of Mathematics and Natural Sciences** - Department of Physics

Application until: 27.12.2024

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We are looking for a postdoctoral fellow (m/f/d) to take on the responsibility for adapting and improving the Gravimetric Atom-Interferometer (GAIN) for participation in the joint project ATOMAQUA.

ATOMAQUA is a new BMBF funded joint endeavor bringing together academic institutions and industry to employ quantum technologies to address challenges in, e.g., environmental protection and the optimal use of natural resources. Specifically, this project will use atom Interferometry for quantitative measurements on underground water reservoirs.

Job description:

- scientific services in research in the ATOMAQUA project
- lead the development and implementation of novel atom interferometry schemes using combinations of electro-optical modulators and high-finesse optical resonators
- organize and lead GAIN measurement campaigns
- work closely with other postdoctoral fellows, doctoral candidates and master students
- interact intensively with academic and industrial partners in the ATOMAQUA collaboration
- present research results in international journals and conferences

Requirements:

- completed academic degree (master or similar) and Ph.D. / doctoral degree (completed or thesis already submitted) in physics (or a related field with appropriate specialization)
- practical experience with ultra-cold atoms / molecules and /or atom interferometry
- good team spirits and ability to work effectively in a collaboration

Beneficial qualifications:

- expertise in the development and /or characterization of laser systems for laser cooling or precision measurement applications
- general laboratory skills (especially: optics, opto-mechanics, opto-electronics, RF-electronics)
- good knowledge of analog and digital electronics
- programming skills (preferably with experience in Python)
- experience in computer aided design (preferably Autodesk)
- leadership skills and experience
- gender and diversity sensitivity

**Application to**

Please send your application (including cover letter, a complete curriculum vitae and relevant certificates), referencing the **Job ID DR/133/24** 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](mailto: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](http://www.hu-berlin.de/stellenangebote), which gives you access to the legally binding German version.