



OeAW - Discovering the future

As a central non-university institution for science and research, the **Austrian Academy of Sciences - OeAW** has the task of **"promoting science in every respect"**. Founded in 1847 as a learned society, it now has over 760 members and around 1,800 employees dedicated to innovative basic research, interdisciplinary knowledge exchange and the dissemination of new insights. The OeAW initiates and maintains partnerships worldwide and represents Austria in international scientific organizations; it cooperates with numerous institutions in the scientific field in order to actively **shape the research landscape**.



Postdoc (f/m/x) in experimental research with cold hydrogen beams

Job ID: MBI076PD126

The Marietta Blau Institute for Particle Physics (MBI) of the Austrian Academy of Sciences (OeAW) is seeking applications for a

Your Tasks

Role & Responsibilities

- Studies of Gravitational Quantum States (GQS) and Whispering Gallery States (WGS) of hydrogen and its isotopes
 - Coordinate measurement campaigns
 - Contribute to beamline and laser optics upgrades necessary to go from GQS to WGS measurement
 - Take part in measurement campaigns
 - Data analysis
 - Preparation of publications
- Ultra-cold hydrogen beam from a dilution cryostat
 - Take part in designing and construction of very cold atom beam
 - Commissioning of cryostat and atomic beam
- Publish results in high-impact journals and present results at international conferences.
- Teach PhD and Masters students within the group.

Your Profile

Preferred Qualifications

- Ph.D. in experimental physics in a relevant field (e.g. atomic physics or particle physics).
- Knowledge of atomic/particle physics (spectroscopy, beams, detection etc.).
- Experience designing, running and analysing experiments to produce high impact publications.
- Knowledge & experience of common experimental techniques such as:
 - UHV and cryogenics
 - Charged and neutral particle detection (e.g. MCPs)
 - Laser systems (CW and pulsed, UV)
 - Atomic spectroscopy

- Software skills for experiment control (Python, Labview), simulation (COMSOL, Python) and data analysis (Python, C++).

Desirable Skills

- Knowledge of the following topics:
 - Cryostat handling (materials, liquid nitrogen/helium)
 - Magnetometry
- Proven track-record of both independent and collaborative working to manage projects within a multidisciplinary international scientific environment.
- Experience teaching research students.
- Fluency in English, both written and spoken. German skills peneficial.

Our Offer

- Full time contract for 40 hours per week with paid lunch break.
- Duration of contract: 31.12.2028
- Office & lab location in the city centre of Vienna - consistently ranked as one of the most liveable cities in the world <https://www.eiu.com/n/campaigns/global-liveability-index-2024/>.

Application Process

- Upload your CV, cover letter and list of publications to the application portal linked below **no later than August 15**.
- Provide contact details of at least two references.
- Provide you availability for a start date.

The minimum annual gross salary for this position is EUR 70.167,44 (full-time based), in accordance with the collective agreement of the Austrian Academy of Sciences (ÖAW). For part-time employment, the salary will be adjusted on a pro rata basis in line with the agreed working hours.

APPLY NOW

The Austrian Academy of Sciences (OeAW) pursues a non-discriminatory employment policy and values equal opportunities, as well as diversity. Individuals from underrepresented groups are particularly encouraged to apply.

Contact

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