

Job ID: IQOQIVIE159DOC123

The Institute for Quantum Optics and Quantum Information Vienna ([IQOQI-Vienna](#)) of the Austrian Academy of Sciences ([ÖAW](#)), Austria's leading non- university research and science institution, is offering a

PHD POSITION (F/M/X)

(part-time, 30h per week)

in the Quantum Systems for Gravitational Entanglement research group led by Dr. Peter Asenbaum.

This new group is focused on experiments that study gravity in quantum systems. The goal is to learn whether gravity plays by the quantum rules. So far, the gravitational interaction between quantum states of single atoms and massive classical objects has been explored. To study the gravitational interaction between two objects in quantum states, one has to use two macroscopic particles. The experiments being set up explore novel techniques to prepare macroscopic particles in quantum states and study their gravitational interaction. For more information on the group's research activities, see [Asenbaum Group](#).

Your tasks:

- Participating in building and designing a new experimental setup
- Preparation and characterization of macroscopic particles
- Simulation of quantum state generation techniques
- Measurement and data analysis

Your profile:

- Received or soon to be received master's degree in physics or other eligible master's degree for the PhD program at the University of Vienna
- Enthusiasm for working in a quantum optics lab
- Interest in precision measurement

Interested candidates are invited to submit:

- Curriculum vitae
- Short research statement
- Bachelor and Master thesis if available
- The electronic (email) contact details of at least one potential reference

to applications-iqoqi@oeaw.ac.at and in cc to peter.asenbaum@oeaw.ac.at (mentioning Job ID:IQOQIVIE159DOC123) until the position is filled.

We offer an annual gross salary of € 46.142,46 (full time based) according to the salary scheme of the Austrian Academy of Sciences.

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.