

Job ID: IQOQIVIE032DOC221

The Institute for Quantum Optics and Quantum Information Vienna ([IQOQI-Vienna](https://www.iqoqi-vienna.at)) of the Austrian Academy of Sciences ([OeAW](https://www.oew.ac.at)), Austria's leading non- university research and science institution, is offering a

## PhD STUDENT POSITION (F\*M)

(part-time, 30h per week)

in the Quantum Information and Foundations of Physics research group led by Dr. Markus Müller.

The Müller group's research focuses on foundational problems in theoretical physics from an information-theoretic perspective, with quantum information theory as its main tool. The group addresses a variety of questions with the rigorous methods of mathematical physics.

For more information on the research activities of the group, see [Müller Group](#).

Now the IQOQI-Vienna is offering one **PhD student position** to a highly motivated and well-qualified student, to carry out research within a 3-year PhD thesis project planned to start after May 1, 2021. This theoretical PhD project will be conducted in the context of an FWF project, „Black-box quantum information under spacetime symmetries“, which explores the semi-device-independent approach to quantum information theory in the context of spatiotemporal symmetries, like rotations or time translations. The project goals are to obtain foundational insights into the relation between quantum theory and spacetime, and to propose new protocols or experiments that exploit those symmetries.

### Your profile:

- Diploma or Master's degree in Physics or a related discipline
- A strong interest in quantum foundations and quantum information theory, demonstrated e.g., by a Master thesis in these topics, is desirable
- Strong background in quantum theory and mathematics – in particular, the ability to work independently and familiarity with formulating and proving mathematical theorems are essential
- Excellent English language and communication skills

### Interested candidates are invited to submit

- Bachelor and Master studies certificate
- A detailed curriculum vitae including a list of publications
- A short Research Statement
- The electronic (email) contact details of at least two potential referees

to [iqqi-personnel@oeaw.ac.at](mailto:iqqi-personnel@oeaw.ac.at) (mentioning Job ID: IQOQIVIE032DOC221) **no later than April 21, 2021**.

We offer an annual gross salary of € 31.326,40 before taxes based on the salary scheme of the Austrian Science Fund ([FWF](#)).

*The Austrian Academy of Sciences (OeAW) pursues a non-discriminatory employment policy and values equal opportunities, as well as diversity. The OeAW lays special emphasis on increasing the number of women in senior and in academic positions. Given equal qualifications, preference will be given to female applicants.*