



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**.



Praedoc (Diss) (f/m/x)

Job ID: IQOQIVIE074DOC226

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 position as

Praedoc (Diss) (f/m/x)

in the Quantum Information and Foundations of Physics research group led by Dr. Markus Müller. "Praedoc" is the official job title of a PhD position, supervised at IQOQI Vienna and awarded by the University of Vienna.

The Müller group's research focuses on foundational problems in theoretical physics from an informationtheoretic 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.

The IQOQI Vienna is now offering a 2-year (extendible) Praedoc position to a highly motivated and well-qualified researcher to start on or after November 1, 2026. This theoretical research will be conducted in the context of an FWF Principal Investigator Project "Relational and operational quantum physics in spacetime", which involves research at the intersection of quantum information theory, quantum foundations, and high-energy physics.

Your Profile

- Master's degree in physics or mathematics suitable for the PhD program of the University of Vienna.
- Strong background in quantum information theory and mathematical methods. In particular, the ability to work independently, and familiarity with formulating and proving mathematical theorems are essential.
- Enthusiasm for the foundations of quantum physics. In particular, interest in (some of) the following:
 - Quantum Reference Frames
 - Operator Algebras
 - Quantum Field Theory
 - Gauge Theory
 - Quantum Measurement Theory
 - Ability to work well in a team.
 - Excellent English language and communication skills.

Our Offer

A position in an innovative and internationally active environment crucial to success

- Numerous voluntary social benefits
- Flex time arrangement
- Opportunity to work independently and develop personally

The candidate will be selected via the VCQ PhD program. Please apply for this program online through the following link <https://vcq-quantum.at/application/> until July 31, 2026; the VCQ application form will be the unique source of information that we review in our assessment of your application.

Additionally, please apply below by clicking on the button "Apply now" and put copies of your VCQ application documents there. (No need to write an additional motivation letter and CV document for this; just upload minimal documents that contain copies of what you wrote in the VCQ application).

The minimum annual gross salary for this position is EUR 53.140,92 (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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Österreichische Akademie der Wissenschaften | Austrian
Academy of Sciences | <https://www.oeaw.ac.at/>

The logo of the Austrian Academy of Sciences (ÖAW) is displayed in blue. It features the letters 'ÖAW' in a stylized font. The 'Ö' has two dots above it. The 'A' is a simple block letter, and the 'W' is also a block letter. The logo is flanked by two horizontal blue bars, one above and one below.