

Postdoc and PhD positions in Theoretical Quantum Technology at RWTH Aachen University and Forschungszentrum Jülich

We are offering postdoc (E13) and PhD positions (E13 3/4) to highly motivated and well-qualified applicants to conduct research in the area of quantum information processing, with a focus on quantum error correction, fault-tolerant quantum computing and physical implementations. Research topics can include:

- Verification and Certification of Quantum Fault-Tolerance
- Open Quantum Neural Networks - From Fundamental Concepts to Implementations with Atoms and Photons
- Advanced quantum computing with trapped ions, with HPC connection

The successful candidates will join the [theoretical quantum technology group](#) led by [Markus Müller](#) at RWTH Aachen and Forschungszentrum Jülich.

Our group is highly passionate about [research](#), with an inclusive and open working and discussion atmosphere, and substantial international collaborations. We are part of a vibrant and growing research environment, including [JARA](#) and the Cluster of Excellence [ML4Q](#). Involvement in ongoing local and international collaborations will be strongly encouraged.

We seek postdoctoral applicants preferentially with a main background in quantum information theory, quantum error correction and fault-tolerance, benchmarking, quantum or classical machine learning, or a closely related field; for PhD applicants, previous experience in quantum information and programming is desirable. We particularly welcome applications from women and applicants with diverse backgrounds.

The positions are related to the European Quantum Flagship, ERC, US and German BMBF/DFG funding.

Applications should consist of a cover letter, a CV including publication list, and a brief (max two pages) research statement. For postdoc (PhD) applications two (one) letters of recommendation should be arranged for. PhD applications should also include a copy of the master thesis and transcripts. The postdoc positions are for two years in the first place, with the possibility for a renewal by a third year.

Questions regarding the positions and all applications should be emailed to m.mueller@physik.rwth-aachen.de. Review of applications will begin after January 20, 2021, and continue until the positions are filled. Early submissions are appreciated. Start date flexible.