

PhD positions in Quantum Information Theory

Thu, 2020-10-15 14:13 - [Martin Kliesch](#) [1] **At:** University of Düsseldorf

Deadline: 15 November, 2020

Location

University of Düsseldorf Universitätsstraße 1
Düsseldorf 40225 Germany
See map: [Google Maps](#) [2]

We are looking for motivated and talented PhD candidates for the theoretical Quantum Technology research group of Martin Kliesch at the University of **Düsseldorf**, Germany.

Research topics: The successful candidates will work on topics related to quantum computation such as

- Characterization and verification of quantum systems (tomography, randomized benchmarking, crosstalk,...)
- Classical simulation of complex quantum systems (tensor networks, sampling in phase space, machine learning)
- Aspects of computational complexity
- Quantum gate synthesis and compiling
- Quantum error correction
- Applied mathematics
- An experimental collaboration on an ion trap quantum computer with direct applications of the above topics

While our group is part of the **physics** institute, we also welcome applications from students with a background in **mathematics** or **computer science**. We value creativity, mathematical rigor, and openness to interdisciplinary collaborations.

We provide a salary based on the German TV-L E13 pay scale. Appointments will be made for three years at 66% (first year) and 75% (later years) E13. Being a junior research group, there is a lot of **discussion time** with optimal supervision for PhD students. We also support a modern working style with the **latest hardware** (e.g. X1 Yoga ThinkPad + docking station with 4k monitor).

How to apply: Candidates should send a **CV** including a list of publications (if applicable) and **certificates** (with grades) and a **statement of research** interests to quantum [at] mkliesch [dot] eu. Please also include electronic contact details of two **potential referees**. Review of the applications will begin on **November 15**, 2020 and will continue until all positions are filled.

- [PhD](#) [3]

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