



**University of Stuttgart**

Barz group

Institute of Functional Matter and Quantum Technologies

We are inviting students to apply for Master's projects in the Barz group:

You are interested in:

- Integrated quantum optics
- Single-photon sources and detection
- Quantum information processing
- Quantum algorithms, quantum computing, quantum networks
- International collaborations
- Interdisciplinary research at the intersection of physics, engineering, computer science, mathematics

We are looking for:

- Excellent and highly motivated students with a background in physics, photonic engineering, or related
- Ideally experience in experimental (quantum) optics and quantum information processing
- Ideally programming skills (Matlab, Mathematica, Python, ...)
- BSc (or equivalent) in physics

Possible projects:

- Development of integrated photon sources
- Development of integrated silicon circuits
- Implementation of protocols for transmission of quantum information in real-life fibre networks
- Implementation of concepts for networked quantum information processing

**Master's theses  
in  
Integrated Quantum Optics  
and  
Quantum Information**

[www.barzgroup.de](http://www.barzgroup.de)

For more information, please contact

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