Position ID | PhotonQ-Stutt-PhD3
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Type of position | PhD
Subject Area | Experiment
Type of institution | University
Start date | 1 March 2022 or after
Type of contract | 36 months
PI | Prof. Dr. Stefanie Barz
Location | University of Stuttgart
Application deadline | Until position is filled

### Position description

**Photonic quantum computing**

Photonic quantum processors allow realizing quantum computing and the implementation of quantum algorithms based on highly entangled photonic states.

We are looking for a PhD student to join our endeavour to realizing quantum computing with single photons.

You will:

- Develop concepts for photonic quantum computing and translate them to optical setups
- Build an optical setup to realize a photonic quantum processor
- Create and characterize highly entangled photonic resource states as a basis for quantum computing
- Implement quantum algorithms
- Build your foundation for future-oriented jobs in research and photonic industries

### Requirements

- MSc in Physics or related
- Ideally: Experience in experimental quantum optics
- Interest in photonic quantum technologies
- Programming skills (Python, Mathematica, Matlab, ...)
- Interest in collaborative and interdisciplinary research

### Application documents

- Short statement of research interests (max. 1 page)
- CV
- Certificates or transcript of records
- Contact details of three referees

### Application email

Please send your application to: barz@fmq.uni-stuttgart.de

### Contact email

For additional questions, please contact: barz@fmq.uni-stuttgart.de