

<b>Position ID</b>	PhotonQ-Stutt-PhD3
<b>Type of position</b>	PhD
<b>Subject Area</b>	Experiment
<b>Type of institution</b>	University
<b>Start date</b>	1 March 2022 or after
<b>Type of contract</b>	36 months
<b>PI</b>	Prof. Dr. Stefanie Barz
<b>Location</b>	University of Stuttgart
<b>Application deadline</b>	Until position is filled
<b>Position description</b>	<p><b>Photonic quantum computing</b></p> <p>Photonic quantum processors allow realizing quantum computing and the implementation of quantum algorithms based on highly entangled photonic states.</p> <p>We are looking for a PhD student to join our endeavour to realizing quantum computing with single photons.</p> <p>You will:</p> <ul style="list-style-type: none"> <li>▪ Develop concepts for photonic quantum computing and translate them to optical setups</li> <li>▪ Build an optical setup to realize a photonic quantum processor</li> <li>▪ Create and characterize highly entangled photonic resource states as a basis for quantum computing</li> <li>▪ Implement quantum algorithms</li> <li>▪ Build your foundation for future-oriented jobs in research and photonic industries</li> </ul>
<b>Requirements</b>	<ul style="list-style-type: none"> <li>▪ MSc in Physics or related</li> <li>▪ Ideally: Experience in experimental quantum optics</li> <li>▪ Interest in photonic quantum technologies</li> <li>▪ Programming skills (Python, Mathematica, Matlab, ...)</li> <li>▪ Interest in collaborative and interdisciplinary research</li> </ul>
<b>Application documents</b>	<ul style="list-style-type: none"> <li>▪ Short statement of research interests (max. 1 page)</li> <li>▪ CV</li> <li>▪ Certificates or transcript of records</li> <li>▪ Contact details of three referees</li> </ul>
<b>Application email</b>	Please send your application to: <a href="mailto:barz@fmq.uni-stuttgart.de">barz@fmq.uni-stuttgart.de</a>
<b>Contact email</b>	For additional questions, please contact: <a href="mailto:barz@fmq.uni-stuttgart.de">barz@fmq.uni-stuttgart.de</a>