

»Researcher / Engineer Quantum Optics & Photonics«

Job Type: Full time or part-time

Location: Jena, Thuringia, Germany

Security and sovereignty of information are granted today by complex algorithm-based cryptography. The rise of quantum computing will challenge our state-of-the art, mathematical based encryption technologies.

We develop and deliver quantum key distribution (QKD) systems based on entangled photons sources to tackle quantum challenges with quantum technologies. This allows the implementation of cyber security solutions based on physical laws. Quantum Optics Jena covers the whole process chain from entangled photons sources, quantum state analyzers to quantum key-generation and -management systems. We enable a quantum added value to our customers and partners. As a start-up, we offer manifold development opportunities, flat hierarchies, and challenging development projects.

Become a part of our team and the Quantum Optics Jena family. We are looking for a researcher / engineer for our hardware development team. You will design and model entangled photon-pair sources based on SPDC. You will be responsible for research projects in the field of advanced entangled photon-pair sources. Furthermore, you will assist our production team with assembly and alignment procedures for quantum light sources.

Essential Qualification, Skills, Experience and Education

- Background in physics, photonics or engineering
- Experiences in system characterization and modeling of entanglement-based quantum key distribution systems or non-linear optics
- Hands-on mentality and proven track record to translate research results into prototypes / products
- Scientific programming in Python

Non-essential Qualifications:

Experience in:

- Lab experience with entangled photon-pair sources, e.g. Sagnac loop, crossed crystal or beam displacer
- Programming in MatLab, LabView, C/C++ or other languages
- Quantum imaging/spectroscopy & quantum information
- Quantum computing and/or post-quantum cryptography

We believe in equality and the power of intercultural, interdisciplinary teams. All qualified applicants will receive consideration for employment without regard to color, race, religion, gender, national origin, or disability.

We are looking forward to your application!

Email: QOJ-TEAM@qo-jena.com

