



In our research group "Experimental Quantum Optics and Quantum Information" at the Johannes Gutenberg-University Mainz we are investigating several scientific questions in the fields of quantum optics and quantum information science with cold, neutral atoms. This contains experiments on long-range interactions, tests on the equivalence principle or the investigation of strong atomic interactions for quantum information processing.

We are offering a position for a

Ph.D

on

Technology Development for robust and mobile Quantum Sensors

Within the ZEROVAK and BECCAL projects, we are developing various technologies (with a focus on laser systems and vacuum systems) for the realization of quantum sensors in space and in other challenging environments.

In the BECCAL project, for example, we are developing an experiment to generate and study quantum gases on board the International Space Station in collaboration with various German universities and research institutions.

For these two projects, we are looking for a motivated candidate (m/f/d) to join us as soon as possible to push the boundaries of what is technologically feasible.

Tasks:

- Development of novel compact and robust laser and vacuum technology for use in quantum sensors
- Supporting the experimental work with the quantum sensors to be developed
- Planning and coordination of the work with the project partners

Requirements:

- University degree (Master of Science or equivalent) in physics or similar
- Experience in the field of experimental laser physics and optics and/or physics of ultracold quantum gases is an advantage
- Mobility and willingness to work locally with the cooperation partners
- Experience with experimental work
- Hands-on attitude

For more information, don't hesitate to contact Prof. Dr. Patrick Windpassinger

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