



Open Position

Position Summary

Within our research group [*Experimental Quantum Optics and Quantum Information*](#) at the Johannes Gutenberg University Mainz, we are currently offering a position of

Research Assistant Product Assurance / Quality Assurance

Our group is part of a consortium of several universities and research institutes spread across Germany, that has a rich experience in constructing and performing quantum optics experiments for microgravity platforms. Notable examples are the MAIUS mission, launched on a sounding rocket, as well as the QUANTUS project, which is continuously performed in a drop-tower in Bremen.

The DLR-NASA project BECCAL (Bose-Einstein Condensate and Cold Atom Lab) will be the next major milestone in this series of experiments. This project envisions a payload for the International Space Station as a multi-user and multi-purpose quantum-optics experimental apparatus. In the scope of this experiment, our group is designing and building a compact and lightweight optical distribution system that will be used to cool, trap and manipulate ultra-cold atoms. The project is currently in the final steps of the design phase, which will finish with the critical design review at the end of the year.

Within this fascinating project we are looking for a research assistant specialized on product assurance/quality assurance.

You will be working with a team of motivated PhD students and postdocs, and profit from a rich exchange with other members of the consortium. The position is paid according to German tariff (TV-L E13) and is offered as a fixed-term contract ending latest at the 31.12.2025.

Primary Responsibilities

- Perform risk and reliability management for the optical splitting and distribution system for the BECCAL payload.
- Generate and maintain quality assurance (QA) and product assurance (PA) documentation to support the project.
- Participate and support in material, part, and process assurance.
- Define and coordinate inspections, verifications and qualifications of flight hardware according to the relevant ECSS standards.
- Examine and document the status of the laboratories with respect to ESD and cleanliness.

Required Skills / Competencies

- University degree in physics, engineering, or related fields (master level required, PhD preferred).
- Proven experience to work, verify and inspect against an industry standard. (Preferred space. However also other fields like defence, medical, automotive or aerospace could also be relevant.)
- Experience in (or at least an interest in and understanding of the role and responsibilities of) quality/ product assurance in aerospace or similar.
- Experience in space projects and the implementation of ECSS is an asset.
- Preferably experience in working with lasers, optics, or cold atoms.
- Excellent communication skills in English.
- Good level of self-motivation and problem solving ability.
- Ability to work autonomously as well as be a key team player.

Please send your application including the common documents (cover letter, curriculum vitae and certifications) electronically to Prof. Dr. Patrick Windpassinger (windpass@uni-mainz.de). In case of any questions, please do not hesitate to contact us.

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