Leibniz-Institut für Astrophysik Potsdam

**The AIP is seeking a qualified**

# Scientist / Engineer for Astronomical Instrumentation (m/f/d)

**for research and development in astronomical spectroscopy**

## About AIP and the job:

Scientists at Leibniz-Institut für Astrophysik Potsdam (AIP) work on a variety of astrophysical topics such as cosmic magnetic fields, extra-galactic astrophysics, precision stellar physics, and are supported by a large technology development team on spectroscopy, robotics, astrophotonics and e-science. The 3DMOS section pursues an ambitious instrumentation programme, mainly in the field of optical spectroscopy and builds world-class multi-object and integral-field spectrographs (such as 4MOST and MUSE for the ESO observatories at Paranal in Chile).

The position will require proven expertise in instrumentation projects. The successful candidate will be engaged in research and development of the optical-fibre system for MOSAIC (a multi-object spectrograph for the ESO-Extremely Large Telescope) and for the Calibration Unit for BlueMUSE (an integral-field spectrograph for the ESO-Very Large Telescope). The work includes the design, assembly, integration and test of opto-mechanical systems, and optical fibre assemblies. The incumbent will join an existing project team of scientific, engineering and managerial staff.

## Main tasks:

- R&D of the technical work packages of the fibre-optical subsystem for MOSAIC and of the calibration unit for BlueMUSE.
- Transfer specifications and requirements to a workable concept and design.
- Interaction with companies and suppliers.
- Assembly, integration, test, analysis and verification of the above subsystems.
- Documentation and presentation of work status and results to project and ESO.
- Support the research activities of the team and contribute to peer-reviewed publications, patents, and conference papers.

## Required qualifications

- Higher degree in (astro-)physics; optical engineering, or in a related technical/scientific field.
- Proven track record and experience with development, assembly, test and verification of opto-mechanical instrumentation and/or lab experiments.
- Demonstrated programming experience.
- Excellent interpersonal and communication skills.
- Demonstrated ability to work as a member of a multi-disciplinary team involving collaboration with optical, electronics, and software design and support staff.
- Good knowledge of spoken and written English for communication, documentation and for oral presentations.

**Desired skills**

- Track record in astronomical instrumentation projects, preferable involving optical fibre systems.
- Some experience in planning and estimating for design and development work.
- Able to identify risks and perform appropriate analysis to mitigate these risks.
- Knowledge and experience with ESO-projects and related processes and documentation is an advantage.
- Basic knowledge of German is a strong asset.

**Conditions:**

The AIP is an equal opportunity employer and strives to maintain a diverse, inclusive work environment and culture. AIP offers flexible working hours, good opportunities for internal and external training, and an open-minded and cooperative working atmosphere in a modern working environment, very well equipped and located in the middle of a World Heritage Site. AIP particularly encourages applications from women and those from diverse backgrounds. Preference will also be given to people with disabilities with equal competence. The salary and social benefits are calculated based on the German public service scale, up to level TV-L13 depending on qualification and experience. Employer contributions to medical, parental leave, and retirement benefits are included. The position is offered on a fixed-term contract, initially until December 2026. Subject to employee performance and funding, continued employment is possible. Employment will be based in Potsdam, Germany, but willingness to do some travel is expected.

To apply, please send the following PDF-documents to: bewerbung-2024-09@aip.de

(1) A cover letter (one page maximum) motivating your application

(2) Your Curriculum Vitae

(3) Copies of MSc or PhD degree certificates

(4) List of publications and talks

(5) Research summary describing your experience, skills, and project-related work so far (no more than two pages, including any figures).

(6) Contact information for two individuals willing to provide reference letters upon request. (Note that we will request such letters only for a subset of applicants after an initial selection step.)

Review of applications will begin immediately and continue until the position is filled.

**Contact**:

Leibniz-Institut für Astrophysik Potsdam (AIP)
Contact: Dr Andreas Kelz
An der Sternwarte 16
D-14482 Potsdam
www.aip.de