



# Leibniz-Institut für Astrophysik Potsdam

Scientists at the Leibniz Institute for Astrophysics Potsdam (AIP) work on a variety of astrophysical topics covering the full range from solar physics to cosmology. Key aspects are cosmic magnetic fields and extra-galactic astrophysics supported by a large technology team on spectroscopy, robotics, and e-science. The AIP is located in the beautiful Potsdam/Babelsberg area, at the South-western border of the Berlin metropolitan area. It continues the tradition of the Astrophysical Observatory Potsdam and the Berlin Observatory (founded in 1700) and has more than 200 employees.

The Leibniz-Institute for Astrophysics Potsdam (AIP), Milky Way and Local Volume section, invites applications for a software development position within the team.

## **Post-doctoral Researcher/Programmer in the Milky Way and Local Volume Section (w/m/d)**

We are looking for a software developer, preferably with a strong astrophysics background, to contribute to the operations software environment of the 4MOST instrument. 4MOST is a wide-field, high-multiplex spectroscopic survey facility developed under leadership of the AIP and expected to become operational in 2025 on ESO's VISTA telescope. The tasks require advanced programming skills (python), knowledge of handling large data bases and complex data structures, understanding of complex optimisation problems, as well as domain knowledge in astrophysics (spectroscopic data analysis, coordinate systems, telescope scheduling and operations). The working language is English. A university degree is required.

### **Your tasks:**

- Support the development of research programmes for the 4MOST Facility
- Maintain relations with scientific users to understand user requirements and improve operations systems based on feedback
- Contribute to the 4MOST operations development as part of an international network of development nodes
- Create, improve, operate, and maintain software modules for the front-end (observations scheduling) and back-end (data analysis and archiving) operations environment
- Create progress reports for internal and external parties

### **Your profile:**

- Ph.D. in astronomy or equivalent
- Thorough background in astrophysics, physics and computational methods
- Very good to excellent programming skills (Python)
- Very good analytical and mathematical skills
- Experience in spectroscopic observations and data reduction and analysis
- Experience with complex coordinate systems, optimisation problems, large data sets, databases and SQL queries in an operational environment is an advantage
- Self-motivation, creativity, flexibility and the ability to work alone and in an international team

**We offer:**

- Salary and benefits are attractive and commensurate with those of public service organizations in Germany at TV-L level E13.
- Flexible working hours
- Social benefits of the collective agreement for the public service (TV-L) including the company pension VBL with pension for reduced earning capacity and surviving dependents as well as a subsidy for the job ticket.
- The appointment will be for a fixed term until 30 June 2026.

To apply, please register at the AIP recruitment portal

**[jobs.aip.de/rec019](https://jobs.aip.de/rec019)**

and follow the instructions to upload the following documents, all in PDF format: A cover letter motivating your application, a Curriculum Vitae including a list of publications (if any) and a letter of motivation describing your research experience, programming skills, and project-related work so far (no more than 2 pages including figures). Please also provide contact information for two individuals willing to provide a reference letter upon request. Note that we will request such letters only for a subset of applicants after an initial selection step.

For any questions on the offered position please contact Dr. Roelof de Jong at the address below. Applications received by February 23, 2024 will receive full consideration. The AIP is an equal opportunity employer who values diversity and particularly encourages woman and other underrepresented groups to apply. Preference will be given to people with disabilities with equal competence. Application documents will be kept for at least three months after completion of the appointment process. The documents will be made available to a selection committee and to other committees and officers to be involved.

Contact for further information:

Dr. Roelof de Jong

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