

Faculty of Environmental Science

In relation to the ESA mission Gaia, the **Lohrmann Observatory** (<http://astro.geo.tu-dresden.de>), **Department of Geosciences, Institute of Planetary Geodesy**, offers a project position as

Research Associate (m/f/x)

(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

starting at the **earliest possible date**. The position is limited until December 31, 2025. The period of employment is governed by § 2 (2) Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz-WissZeitVG). Subject to the availability of funds, extensions are possible in further work packages up to the end of the project in about 2030.

The goal of the space telescope **Gaia** (<https://www.cosmos.esa.int/web/gaia>) is the determination of the spatial positions and velocities as well as the astrophysical characterization of about 2 billion celestial objects. Gaia is considered as a revolution in astronomy and enjoys the highest international reputation.

The team of the **Lohrmann Observatory** is part of the European Gaia Consortium and primarily responsible for the relativistic aspects of the data processing as well as the definition, computation and analysis of the astrometric solutions of Gaia.

Tasks: Research work in the area of space astrometry with Gaia, especially:

- analysis of the data and scientific results of Gaia;
- investigation of astrophysical and mathematical aspects of algorithms;
- design, implementation and application of algorithms and software for the Gaia data processing as well as for the data analysis and reporting;
- presentation of the research results at international meetings and in scientific publications.

The focus of the activity will be adjusted according to personal qualifications.

Requirements:

- successful completion of university studies in astronomy, physics, mathematics, computer science or related areas;
- reasonable experience in software development in a team; proficiency with a modern object-oriented computer language (e.g. Java, Python); further IT-background is a plus;
- practical experience with the processing and analysis of large datasets;
- fluent English in spoken and written; readiness for international exchange;
- vcapacity for independent, goal-oriented work, high motivation, readiness to integrate and to take on responsibilities in the team.
- Advanced knowledge in applied mathematics (for example, statistical data analysis), physics and astronomy is highly desirable.

Applications from women are particularly welcome. The same applies to people with disabilities.

Please submit your comprehensive application including the usual documents until **March 1, 2022** (stamped arrival date of the university central mail service applies), preferably via the SecureMail Portal of the TU Dresden <https://securemail.tu-dresden.de> by sending it as a single pdf document to sergei.klioner@tu-dresden.de or by mail to: **TU Dresden, Fakultät Umweltwissenschaften, Fachrichtung Geowissenschaften, Institut für Planetare Geodäsie, Lohrmann-Observatorium, Herrn Prof. Dr. habil. Sergei A. Klioner, Helmholtzstr. 10, 01069 Dresden, Germany**. Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

Reference to data protection: Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website: <https://tu-dresden.de/karriere/datenschutzhinweis>.