



Post-Doc position in space sciences

The Department of Earth and Environmental Sciences (Geophysics Section) at the Ludwig-Maximilians-Universität München, Germany, is seeking applications from enthusiastic young researchers for a position at Post-Doc level for a project funded by the European Space Agency (ESA) on

### **Ultra High-Performance Gyroscopes for Future X-ray Interferometer Missions**

X-ray interferometry bears the possibility to image astronomical objects in microarcsecond ( $\mu\text{as}$ ) resolution. This target resolution sets extreme requirements for the measurement precision of the spacecraft orientation carrying the X-ray interferometer which is about 2 orders of magnitude better than what is available today. The project aims to define an ambitious roadmap for next-generation gyroscope technology, enabling space missions with unprecedented precision in targeting accuracy.

ESA invited an international consortium of experts in gyroscope technologies to conduct a feasibility study on ultra high-performance gyroscope technologies covering fiber-optic, ring-laser, cold-atom and London gyroscopes. You will work in an international team of world leading gyroscope manufacturers and Earth and space scientists:

[MAAGM](#), France

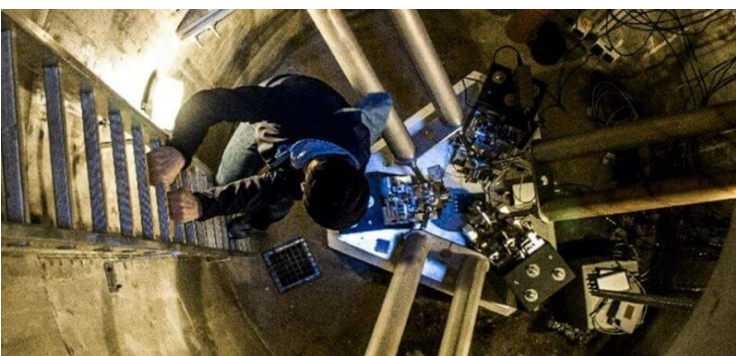
[Department of Earth and Environmental Sciences](#) LMU Munich, Germany

[ELPROMA](#), Poland

[SODERN](#), France

[SYRTE](#), France

[IPGP](#), France





#### Your tasks:

- You will define requirements for AOCS (Attitude and Orbit Control Systems) for high resolution X-ray missions.
- You will define a preliminary sensor suite architecture for ultra high-performance gyroscopes.
- You are responsible for the technical coordination of project activities.

#### Your background and skills may include:

- Preferably, a PhD in a space or Earth science related topic, alternatively in navigation or optical engineering.
- Some experience in motion sensing technologies, pointing technology, or space instrumentation.
- Good communication and management skills.

#### Your workplace:

- With the [ROMY](#) ring-laser gyroscope and its pool of portable FOG rotation sensors LMU Munich hosts worldwide unique rotation sensing technology.
- You will be hired on a fixed term contract for 1 year, 35h/week with opportunity for permanent position at industry partners based on successful performance.
- We realize flexible and family friendly working time models (e. g. remote work is possible).
- Your gross yearly income will be between € 47.590 and € 67.640 (depending on your level of experience, salary according to TVL-E 13, German [Tarifvertrag der Länder](#)).
- You will work in the center of the attractive and vibrant city of Munich close to the German Alps.

More information can be found in the [LMU job portal](#).

Complete applications must include a statement of research interests (max 1 page), CV, and names and addresses of three referees. Deadline for applications is November 30, 2024. Later applications may be considered until the position is filled.

Please send your application to: Dr. Felix Bernauer, Department of Earth and Environmental Sciences, Ludwig-Maximilians-Universität, Theresienstrasse 41, 80333 Munich, Germany, e-mail: [Felix.Bernauer@lmu.de](mailto:Felix.Bernauer@lmu.de).

