



UNIVERSITY
OF COLOGNE

Faculty of Mathematics and Natural Sciences

Postdoctoral research position (f/m/x) on studies of icy moons in the outer solar system

Institute of Geophysics and Meteorology

We are one of the largest and oldest universities in Europe and one of the most important employers in our region. Our broad range of subjects, the dynamic development of our main research areas and our central location in Cologne make us attractive for students and researchers from around the world. We offer a wide range of career opportunities in science, technology, and administration.

The Space and Planets Group at the University of Cologne in Germany is seeking a candidate for a postdoctoral research position (f/m/x) on studies of icy moons in the outer solar system. The project will focus on the space plasma environments of icy moons and electromagnetic induction within the moons' conductive layers, such as subsurface saline oceans. Among other things, the study will use numerical tools and/or perform data analysis to investigate the space environments around these moons and their induction responses. The aim is to provide diagnostics for a better understanding of the moons' exterior space environments and their interiors, such as the physical properties of subsurface oceans with implications for their evolution and present dynamics. The studies will be relevant for future spacecraft measurements on these moons.

YOUR TASKS

- » Perform and analyse numerical simulations of the space environment around icy moons
- » Analyse measurements obtained by spacecraft or telescopes
- » Use and modify models of the induction responses generated within the saline subsurface oceans of icy moons in the outer solar system
- » Present findings at workshops and international meetings
- » Publish results in peer-reviewed scientific journals

YOUR PROFILE

- » The requirements are a doctoral degree in geophysics, physics, astronomy or related fields
- » Knowledge of numerical and modelling tools and/or experience in data analysis are required

WE OFFER

- » An interdisciplinary research project
- » A diverse working environment with equal opportunities
- » Support in balancing work and family life
- » Flexible working time models
- » Extensive advanced training opportunities
- » Occupational health management offers

The University of Cologne promotes equal opportunities and diversity. Women will be considered preferentially in accordance with the Equal Opportunities Act of North Rhine-Westphalia (Landesgleichstellungsgesetz – LGG NRW). We also expressly welcome applications from all suitable candidates regardless of their gender, nationality, ethnic and social origin, religion, disability, age, sexual orientation and identity.

The position is available from 1 September 2025 on a full-time basis (39,83 hours per week). The position is to be filled for a fixed term until 30 September 2027. If the applicant meets the relevant wage requirements and personal qualifications, the salary will be based on remuneration group 13 TV-L of the pay scale for the German public sector.

Please apply online with proof of the required qualifications without a photo under: <https://jobportal.uni-koeln.de>. The reference number is Wiss2504-10. Please include in your application a motivation letter, your CV with 1 to 3 most important publications and two references. The application deadline is 30 May 2025.

For further inquiries, please contact Professor Dr Joachim Saur (saur@geo.uni-koeln.de) and take a look at our [FAQs](#).

