Research Associate (PhD or Postdoc position)

Modelling volatile dynamics and regolith interactions on solar system bodies

The Professorship of Lunar and Planetary Exploration at TUM invites applications for a Research Associate at the level of TV-L E13 (100%, public sector pay scale). The expected starting date is January 2025. The position encompasses the modelling of volatile dynamics and regolith interactions on solar system bodies, with a focus on the Moon. The position is part of a new project funded by the European Commission. The initial contract is limited to 3 years (2 years for postdoc), and an extension is foreseen.

About us: We are strongly dedicated to improving the understanding of the lunar water cycle, with many applications in the field of solar system science and exploration. To this end, we combine both numerical modelling and experimental methods and develop instrumentation to characterise water in situ on the lunar surface. We have recently acquired several high-profile grants to fund this research and are rapidly expanding.

The position: Your task is to expand and incorporate existing model descriptions for the dynamics of volatiles (predominantly water) on airless bodies into a model framework that allows a comprehensive investigation of their interdependencies. You will work in a team of 4–5 researchers that combines numerical and experimental expertise and works jointly on the project.

Our offer: We offer the opportunity to conduct cutting-edge research in an academic environment at one of the top universities in Europe. You will have the opportunity to engage in the international research community, present your work at international conferences, and publish in leading journals. Through its Graduate Centre and Talent Factory, TUM supports PhD students and Postdocs by providing a dedicated qualification program, as well as interdisciplinary collaboration and networking opportunities.

We look for:
- a team player with the ability to work independently with an excellent master's (or doctoral) degree in aerospace, physics, computer science, or related fields,
- proficiency in numerical modelling, programming, and data analysis,
- optional experience with high-performance computing (e.g. Julia),
- a strong passion and curiosity for space exploration and solar system science,
- excellent organisational and communicational skills in English (oral/writing).

Application: Please send a max. 1-page cover letter, your CV, and relevant university and work certificates in one pdf file by 1 September 2024 to **office.lpe@ed.tum.de**.

As an equal opportunity employer, TUM explicitly encourages applications from women and all others who would bring additional diversity dimensions to the university. Preference will be given to disabled candidates with essentially the same qualifications.