

Freie Universität Berlin - Fachbereich Geowissenschaften - Institut für Geologische Wissenschaften Planetary Geophysics, SFB 1759



The SFB 1759 "Habitability as a fundamental planetary process: Towards a paradigm shift away from our perception of the uniqueness of Earth" is a newly established Collaborative Research Center studying habitability for life as we know it based on fundamental physio-geo-chemical processes set by the planet's evolution. The study of planetary habitability in this SFB is therefore oriented along the planetary boundary conditions set by astronomy, physics, chemistry and geology, rather than Earth-specific biological evolution. By focusing on the environments in which life may (or may not) evolve, the SFB will be able to define which signatures (such as trace elements in an atmosphere) can be explained by abiotic processes, and which would indeed need some form of extraterrestrial life, leading to a new database of potential biosignatures as well as traces of habitability. As finding potential biosignatures or traces of habitability may also impact society, the SFB takes a holistic approach and investigates also ethical considerations, how scientists communicate scientific results to the public and how these are discussed in social media, as well as the general perception of the public and factors influencing this. In the SFB, different views on one of the most important questions of humanity — are we alone in the universe? — will therefore be examined hand in hand with different perspectives in natural sciences, social sciences, and humanities. More information: <https://www.geo.fu-berlin.de/en/geol/fachrichtungen/planet/projects/SFB1759> The planned position is offered at the Freie Universität Berlin, Institute of Geological Sciences, in Berlin, Germany. Review of applications will start on the day after the application deadline until the position is filled. The earliest starting date of the position is the 1 October 2026. The starting dates are flexible but funding is limited to 30 June 2030. Applications should be written in English and include a cover letter, the names and email addresses two referees, CV, copies of degree certificates and transcripts, all combined into a single pdf (max. 10 MB). It is possible to apply for multiple positions offered within the SFB at the same time, please indicate the reference code(s) for the position(s) that you are applying for and email your application to coord@sfb1759-planetary-habitability.de.

Research assistant (postdoc) (f/m/d)

full-time job limited till 30.06.2030 salary grade (Entgeltgruppe) 13 TV-L FU reference
code: SFB1759-B05-HR

City: Berlin; Starting date (earliest): At the earliest possible; Duration: befristet bis
30.06.2030 für die Dauer des Projekts; Remuneration: Entgeltgruppe 13 TV-L FU;
Reference number: SFB1759-B05-HR; Closing date: 10/08/26

Tasks

We are seeking applicants at post-doc level for a position in the newly established collaborative research center SFB 1759.

The overarching goal of this project is to develop an integrated, physics-based framework to assess the long-term habitability of rocky exoplanets. We aim to quantify how a planet's interior structure, tectonic regime, volatile cycling, and redox state interact with its atmospheric evolution and escape processes to determine whether liquid water can persist on its surface over geological timescales. The postdoctoral researcher will advance the 1D-TERRA atmospheric code and couple it with the interior-atmosphere code

TEMPURA. The researcher will then calculate theoretical spectra and conduct detectability analyses with current and future missions. For more information, please contact Heike Rauer (heike.rauer@dlr.de).

Requirements

Requirements:

Completed PhD in Planetary Sciences, Astronomy, Chemistry, Physics, or a related field by the time of employment.

Desirable:

- Excellent academic record and doctorate/PhD thesis
- Several years of experience in numerical simulations of planetary atmospheres
- Strong knowledge of atmospheric chemistry, radiative transfer, or atmospheric dynamics
- Strong programming skills in languages such as Python, C++, or Fortran
- Experience in publishing
- Good analytical and problem-solving skills, good communication skills, and the ability to work independently and as part of a team
- Very good written and spoken English (B2/C1)

Application

Applications should be sent by e-mail, together with significant documents (complete CV incl. all certificates, letter of motivation, references), indicating the **reference code, no later than August 10th, 2026** in PDF format (preferably as *one* document) to Frau Prof. Dr. Heike Rauer: coord@sfb1759-planetary-habitability.de or postal to

Freie Universität Berlin
Fachbereich Geowissenschaften
Institut für Geologische Wissenschaften
Planetary Geophysics, SFB 1759
Frau Prof. Dr. Heike Rauer
Malteserstr. 74-100
Haus D, 12249 Berlin (Lankwitz)

With an electronic application, you acknowledge that FU Berlin saves and processes your data. FU Berlin cannot guarantee the security of your personal data if you send your application over an unencrypted connection.

Freie Universität Berlin is an equal opportunity employer.

More information at <https://stellenticket.de/206049/BUA/>
Offer visible until 10/08/26

