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# PhD Position in Exoplanet Atmospheres at University of Bern

The University of Bern invites applications for a 4-year PhD position to work in the group of Daniel Kitzmann on exoplanet atmospheres. This position is advertised in the frame of a project funded by the Swiss National Science Foundation (SNSF), conducted within the research groups of Jens Hoeijmakers (Lund University) and Daniel Kitzmann (University of Bern). The group of Daniel Kitzmann focusses on the development of new radiative transfer and chemistry models to interpret observations of exoplanet atmospheres, including high-resolution ground-based spectroscopy and JWST. The group of Jens Hoeijmakers focusses on carrying out observations of exoplanet atmospheres, especially high-resolution ground-based spectroscopy of ultra-hot Jupiters. The two groups work together to enable faster, more efficient and more robust interpretations of new and upcoming observations of the atmospheres of hot gas giants as well as smaller, cooler exoplanets.
As part of this project, another 4-year PhD position is advertised by Jens Hoeijmakers at the University of Lund as well.

## Job description

As a PhD student you will work on atmospheric retrievals of exoplanet atmospheres at high spectral resolution and atmospheric modelling to theoretically predict the overall atmospheric structures. Your work will be done in close collaboration with the observational group of Jens Hoeijmakers from Lund University. This position is a 4-year appointment. The start date is flexible within spring/summer 2025. Employment conditions follow the standards of the University of Bern and the SNSF for PhD students (salary starting at 47 kCHF/year).

## Requirements

You must have a master's degree in Astronomy, Astrophysics, Physics, or a closely related field by the start of the position. Very good oral and written proficiency in English is an essential requirement. Prior education containing a significant number of advanced astrophysics courses is strongly desired. Experience in exoplanet atmospheres theory/modelling or observations would be a strong asset. Expertise in high-level programming languages, such as C++ or Python, would be considered a strong asset as well.

## How to apply

Please submit a cover letter (max 1 page) and a personal research statement describing your relevant experience and your motivation to work on this project (max 2 pages), your CV, copy of your master's degree certificate, and a copy of your transcript **as a single PDF file** to daniel.kitzmann@unibe.ch.
Please also provide the contact for at least one letter of reference, preferably the supervisor of the master's thesis, in your cover letter. Reference letters will not be

requested and will not be assessed during the initial review of the applications. The reference persons provided in the application may only be contacted for candidates who are invited for an interview.
The **deadline for applications is 20 December 2024**. Applications not respecting these guidelines will not be considered.
The University of Bern is committed to diversity and inclusivity and encourages applications from candidates of all backgrounds.

## Inquiries

For further information please contact Daniel Kitzmann (daniel.kitzmann@unibe.ch).