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**UNIVERSITÄT
BERN**

Astronomisches Institut, Sidlerstrasse 5, CH - 3012 Bern

Bern, October 2, 2025

Philosophisch-
naturwissenschaftliche Fakultät
Astronomisches Institut

The **Space Weather group of the Astronomical Institute of the University of Bern (AIUB)** is inviting applications for a

PhD student

to work on

adaptive optics

The University of Bern hosts many domains of astronomy, from solar physics, to exoplanets, and satellite observations. The successful candidate will work in the space weather group, which combines building astronomical instrumentation, machine learning, and researching the physics of the Sun and stars. This position is part of a SERI-funded MARVIS grant.

The Astronomical Institute operates the Zimmerwald Observatory with 5 telescopes from 20 cm to 1 m. The quality of images observed with telescopes is usually degraded by atmospheric turbulence. Special optical systems, known as adaptive optics (AO), can be used to counteract this image degradation, but so far none are in use at any telescope in Switzerland. The goal of this PhD position is to help design and develop an AO system for our 80 cm telescope at the Zimmerwald Observatory, test it in the laboratory and on site, and subsequently carry out own observations. The scientific targets range from high-resolution imaging of satellites to other astronomical objects.

The PhD student will learn about astronomical instrumentation, optics, observations, and image analysis. The length of a PhD is typically 3-4 years. Support for conferences and collaborations is available.

- Requirements:**
- We are looking for highly motivated candidates with (or obtaining soon) a MSc in physics, astronomy, or a related topic.
 - A strong interest in experimental work is desired, particularly in astronomical instrumentation, telescopes, and optics.
 - Knowledge of programming in Python and of Zemax would be beneficial.
 - At least a basic knowledge of astronomy is required and knowledge of astronomical data analysis is beneficial.
 - Strong verbal and written communication skills in English.
 - Strong analytical abilities and problem solving/troubleshooting skills.
 - Teamplayer who likes to work with other group members and students.

Appointment: Starting as soon as possible, open until filled. Funding for maximally 4 years.

Prof. Dr. Lucia Kleint
Sidlerstrasse 5
CH - 3012 Bern

Tel. +41 (0)31 684 80 08
lucia.kleint@unibe.ch
<http://www.aiub.unibe.ch>

- Application:** deadline: **November 2, 2025**, via email to L. Kleint, containing (**as one pdf file**):
- CV
 - motivation letter **for this specific PhD position**
 - a copy of BSc and MSc transcripts of courses and grades (scans of official transcripts are sufficient)
 - if available, a pdf of or link to the Master's thesis (if emailed, please < 5 MB).
 - Two letters of recommendation shall be sent before the application deadline directly **by the references** to L. Kleint.
- Incomplete applications, applications with missing reference letters, or applications written by ChatGPT unfortunately cannot be considered.
- Salary:** Based on the regulations of the University of Bern, starting at 47 kCHF/year
- Contact:** Prof. Dr. Lucia Kleint (email lucia.kleint@unibe.ch)

An equal opportunity environment is important to us, and we welcome applicants from groups that are traditionally underrepresented in physics and astronomy. We will be particularly pleased to receive applications from women for the advertised position.