



---

<sup>b</sup>  
**UNIVERSITÄT  
BERN**

Astronomisches Institut, Sidlerstrasse 5, CH - 3012 Bern

Bern, January 30, 2023

Philosophisch-  
naturwissenschaftliche Fakultät

**Astronomisches Institut**

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

## PhD student

to work on

### machine learning and solar/stellar data analysis

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 focuses on understanding solar and stellar flares with machine learning. Solar and stellar flares are highly energetic eruptions, which however are neither fully understood, nor can they be well predicted. This project has the goal of developing, implementing, and using methods to analyze large astronomy data sets to better understand the physics of flares.

The PhD student will learn about flares, spectroscopy and spectropolarimetry, data analysis, machine learning, and programming. The length of a PhD is typically 3-4 years. Support for conferences and collaborations, as well as potential telescope observing is available.

- Requirements:**
- We are looking for highly motivated candidates with (or obtaining soon) a MSc in physics or astronomy.
  - Knowledge of programming in Python or IDL and/or handling of large data would be beneficial.
  - At least a basic knowledge of astronomy is required.
  - 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:** as soon as possible after the deadline, open until filled. Funding for maximally 4 years.

**Application:** deadline: **March 5, 2023**, via email to L. Kleint, containing (as one pdf file):

- CV
- motivation letter
- a copy of BSc and MSc transcripts of courses and grades (scans of official transcripts are sufficient)
- if available, a link to the Master's thesis.
- Two letters of recommendation shall be sent before the application deadline directly by the referees to L. Kleint.

**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](mailto: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.

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

Tel. +41 (0)31 684 83 79  
[lucia.kleint@unibe.ch](mailto:lucia.kleint@unibe.ch)  
<http://www.aiub.unibe.ch>