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UNIVERSITÄT
BERN

Astronomisches Institut, Sidlerstrasse 5, CH-3012 Bern

Philosophisch-
naturwissenschaftliche Fakultät

Astronomisches Institut

Bern, 23. November 2026

Open Position at the Astronomical Institute of the University of Bern

The group “Space Geodesy” of the Astronomical Institute of the University of Bern (AIUB) offers the position for a

PostDoc

The focus will be on the determination of time-variable Earth’s gravity fields from real GNSS data of CubeSat constellations and scientific Low Earth Orbiting (LEO) satellite missions.

Today, more and more commercial satellites equipped with dual-frequency GNSS receivers are launched, e.g., from Spire Global, a satellite-powered data company that uses a large, distributed constellation of multi-payload nano-satellites. These satellites have the potential to provide high-temporal-resolution measurements through entire CubeSat constellations, which can mitigate existing data gaps and improve Earth science phenomena by sustained observations with increased spatial and temporal resolution.

The main focus of the PostDoc position will be on orbit and gravity field recovery using the GNSS data of the zenith-looking antennas of the Spire Global satellite constellation and further scientific LEO missions. Optimum combination schemes shall be developed to improve the recovery of the very long-wavelength part of the Earth’s time-variable gravity field from normal equations that are based on kinematic positions stemming from satellites at different altitudes and providing GNSS data of inhomogeneous quality.

Education:

The candidate is expected to have successfully completed the Ph.D. thesis in astronomy, geodesy, physics, aerospace engineering, or a related discipline. Experience in orbit and gravity field determination from satellite data is an advantage. Background in computer science (coding in Fortran, C++, Python or Perl) is not a requirement, but beneficial for working on this project. The candidate should speak and write English fluently.

Prof. Dr. Adrian Jäggi
Co-Director
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The candidate should start working in Bern on February 01, 2027.

The PostDoc project is scheduled for two years. The salary follows the guidelines of the Swiss National Science Foundation for PostDoc positions.

Application:

Applications (including CV, university diploma copies, record of study, possible references) should be received as soon as possible but no later than December 14, 2026 at the following address:

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Informal information may be obtained at the above address as well.

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 or from persons with a disability for the advertised position.