

Interview with [Prof. Dr. Kira Rehfeld](#)



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What can selected researchers from the CAPES Chair program expect at the Geo- and Environmental Sciences Center (GUZ)?

The Department of Geosciences at the University of Tübingen has a strong focus on terrestrial geosciences. The Department provides excellent laboratory infrastructure in the new Geo- and Environmental Sciences building and offers opportunities for collaboration with multiple research groups, such as Climatology, Sedimentology, Geochemistry, Structural Geology, and Geophysics.

What does the Geo- and Environmental Sciences Center (GUZ) offer specifically within the framework of this Chair program?

The paleomagnetic laboratory includes a 2G Enterprises DC SQUID magnetometer with in-line AF demagnetization in a shielded room, spinner magnetometers, thermal demagnetizers, an AGF Micromag for hysteresis and first-order reversal curve measurements, a pulse magnetizer, and various instruments for temperature- and frequency-dependent susceptibility measurements. There are few laboratories of this high standard in Europe.

Could you describe the research conducted on paleomagnetism and the magnetic properties of sediments and rocks at the Geo- and Environmental Sciences Center (GUZ)?

Paleomagnetism is a powerful tool for quantifying a multitude of Earth system processes over a wide range of spatial and temporal scales. This includes plate tectonics, landscape evolution, and environmental and climate change through the dating of sedimentary archives and magnetic proxies. The main focus of this call is on paleomagnetism and the magnetic properties of sediments and rocks.

The characterization of magnetic minerals in sedimentary rocks, sediments, and soils provides valuable information on the natural and anthropogenic environmental processes that occurred during their formation. Moreover, paleomagnetic measurements allow the establishment of geochronologies for geological archives through magnetostratigraphy, geomagnetic excursions, and paleosecular variation. Establishing such geochronologies is essential for determining the age, causes, effects, and rates of environmental change.



What expectations do you have for the CAPES Chair program, particularly regarding research collaborations and funding opportunities?

Beyond the opportunity to spark new research, the Department will support the accompanying postdoctoral researcher in submitting an ERC Starting Grant and/or an Emmy Noether Young Investigator Grant, which will transform our developing collaboration with Brazil into a long-term sustainable partnership.

