

Institut für Geophysik
Geophysikalisches Kolloquium
Wintersemester 2025/2026

Montag, 10.11.2025

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**Long-term global geomagnetic field evolution –
from centuries to reversals**

The geomagnetic field, generated by geodynamo processes in Earth's outer core changes constantly. This secular variation is nowadays monitored by continuous measurements from ground geomagnetic observatories and satellites. However, direct observations reveal only a very short part of the full range of temporal geomagnetic field changes. Information about the field evolution prior to direct observations is gained from archeo- and paleomagnetic results that are obtained in laboratory experiments on suitable archeological and geological material. When enough globally distributed data of these types are available we can reconstruct the global geomagnetic field evolution on time-scales from several centuries and millennia. The talk gives an overview over currently existing long-term global geomagnetic field reconstructions and what they tell us about geomagnetic field evolution and the geodynamo processes in the core. A particular focus lies on the extreme geomagnetic field changes during geomagnetic polarity excursions and reversals.

Das Kolloquium findet um 11:15 Uhr im Seminarraum GEO 315, Corrensstr. 24, 48149 Münster statt. Alle an dem Thema Interessierten sind hierzu herzlich eingeladen.

Die Dozenten des Instituts für Geophysik