

Institut für Geophysik
Geophysikalisches Kolloquium
Wintersemester 2022/23

Montag, 30.01.2023

Dr. Stefanie Donner

Bundesanstalt für Geowissenschaften und Rohstoffe (BGR)

Benefits of Rotational Ground Motion Measurements for Seismology

The emerging field of seismic wavefield gradients (i.e. ground strain and rotation) experienced significant progress in acquisition and processing during the past decade. Especially, when measured collocated with ground translation, these measurements have the potential to promote almost all fields of seismology. No matter which is the specific object of study (shallow or deep Earth structure, seismic source, wavefield properties, parameters for structural engineering, ...), we can derive at least as much or even more information from sparse or single station networks.

In this talk, I will provide a brief introduction on the theory of rotational ground motions and why they are beneficial. This is followed by an overview of possible applications. Here, I concentrate on applications used at BGR, i.e. earthquake monitoring, microzonation and determining seismic moment tensors.

Das Kolloquium findet um 16:00 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