



Ground Truth and Application for the Anisotropic Receiver Functions Technique – Test site KTB: the installation campaign

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The project at hand is a field test around the KTB (Kontinentale Tiefbohrung) site in the Oberpfalz, Southeastern Germany, at the northwestern edge of the Bohemian Massif. The region has been extensively studied through the analysis of several seismic reflection lines deployed around the drilling site. The deep borehole had been placed into gneiss rocks of the Zone Erbsdorf-Vohenstrauß. Drilling activity lasted since 1987 to 1994, and it descends down to a depth of 9101 meters.

In our experiment, we aim to recover structural information as well as anisotropy of the upper crust using the receiver function technique. This retrieved information will form the base for a comparison between the resulting anisotropy amount and orientation with information of rock samples from up to 9 km depth, and with earlier high-frequency seismic experiments around the drill site.

For that purpose, we installed 9 seismic stations, and recorded seismicity continuously for two years.