

Estimation of Crust and Uppermost Mantle Structure by Reflection and Receiver Function Analyses

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In the northern Kinki district, the dense seismic observation network has been operated. We carried out reflection and receiver function analyses with high resolution by using the data obtained from this observation network. In the reflection analysis, we obtained three dimensional distribution of reflection strengths in the northern Kinki district. We found a S wave reflector was dipping to the north and LFEs occurred at a high reflection strengths zone. In the receiver function analysis, we also used the data, which obtained from a dense linear array observation conducted in Kii peninsula and obtained the three dimensional distribution of seismic wave discontinuities beneath the Kinki district. As a result of the receiver function analysis, the continental Moho discontinuity becomes shallow to the southward in the Kii peninsula.

Keywords: Reflection analysis, Receiver function analysis, Fluid, Niigata-Kobe Tectonic Zone