

Seismic structure beneath Ryukyu arc, Japan, inferred from S-wavevector receiver functions

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This study describes the seismic images of the crust and uppermost mantle beneath the Ryukyu arc, Japan by using S-wavevector receiver function (SWV-RF) analysis at virtual subsurface receivers. The SWV-RF has a great advantage that the problem of unclearly seismic images beneath very thick sedimentary basin due to the records include strong effect of reverberation within the sedimentary layer can be overcome (Takenaka and Murakoshi, 2010, AGU). In this study, we applied the SWV-RFs from broadband seismic records of the F-net (NIED) and ETOS (JMA) to obtain the seismic images of Moho and subducted Philippine Sea plate beneath the Ryukyu arc, Japan. In this presentation, we will show the estimated seismic structure beneath the Ryukyu arc, which is derived from the depth-converted SWV-RFs.

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