

# Seismic imaging of the crust structure beneath Kyushu by receiver function analysis

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It is for a purpose of this study to understand the seismic structure of the crust beneath Kyushu by use of receiver function analysis. Murakoshi et al.(2003) applied the receiver function inversion using genetic algorithm to estimate the detailed velocity structures beneath the stations and showed that a low velocity layer is visible in the uppermost mantle beneath Fukuejima island in the western Kyushu by using the 17 broadband seismic stations in Kyushu. And Murakoshi et al.(2004) estimated the three-dimensional velocity structures beneath Kyushu by using a migration technique. The low velocity layer is visible in the uppermost mantle in the western Kyushu may show the partially melting by the mantle upwelling in the backarc of Kyushu. But there are a few numbers of the broadband seismic stations in the western Kyushu. So we installed new broadband seismic stations at Hirado, Sumoto and Take in the western Kyushu to study this structure in detail. We applied these new data for receiver function analysis and migration imaging.