# Structure of the Crust and Upper Mantle beneath the Tokai District from deduced Receiver Functions

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Since it has become easy to get digital seismograms, the Receiver Function method has been used widely to estimate depths of discontinuities in seismic velocities. The Receiver Function is calculated the response which deconvolved by vertical component of P wave from the radial component of PS converted wave. In this paper, we report preliminary results of our investigation on the structure of crust and upper mantle beneath the Tokai district estimated from the Receiver Function analysis.

We used digital data of seismograms that had been obtained by broadband seismograph network of NIED (FREESIA). From data of earthquakes with magnitudes above 6.5 and with epicentral distances of 30-90 degree that occurred during the period from 1997 to 2001, we selected out seismograms for which starting of the P wave is sharp. Further, we made a grouping of earthquakes by their epicenters only to stack receiver functions for earthquakes from the same direction to stabilize the result. Calculated receiver functions still had some variations in spite of such taking cares.

Obtained receiver functions differ somewhat from station to station. We consider the difference may reflect structure beneath each station. Some stations give especially strong receiver functions, indicating existence of sharp discontinuities in velocity structure beneath them.