

## Variations in the thickness of the seismogenic layer beneath the Japan Islands.

# Fumiko Ochi[1], Dapeng Zhao[1]

[1] Earth Sci., Ehime Univ

We have investigated the regional variations of the seismogenic layer beneath the Japan Islands from about 30,000 well-located crustal microearthquakes. A 3-D velocity model and a 3-D ray tracing method are used to relocate hypocenters precisely. We also examined the relationship between the thickness of the seismogenic layer and large crustal events, active faults, volcanoes and tomography. The results are as follows. (1) Large crustal events occur in areas where the seismogenic layer changes abruptly. (2) The upper and lower cut-off depths of crustal earthquakes become shallow toward volcanoes. (3) The steep variations of the seismogenic layer exist along fault zones. (4) The thickness variations of the seismogenic layer show a good relation with tomography.