

Distribution of Seismic Scatterers Estimated from Seismic Array Observations beneath the Nagamachi-Rifu Fault

Youichi ASANO[1], Tomomi Okada[1], Yoshihiro Ito[1], Shuichiro Hori[1], Toshio Kono[2], Akira Hasegawa[3]

[1] RCPEV, Tohoku Univ., [2] RCPEV, Graduate School of Sci., Tohoku Univ., [3] RCPEV, Graduate School of Sci., Tohoku Univ.

Seismic array observations were made in order to estimate inhomogeneous structure around the Nagamachi-Rifu fault zone. In the deepest part of the fault zone, an earthquake with M5.0 occurred on September 15, 1998. We deployed a small aperture seismic array and recorded many earthquakes, including aftershocks of the M5.0 event. Semblance analysis was carried out for seismograms of the aftershocks to detect coherent wave trains. Locations of scatterers are estimated from the azimuth, slowness and arrival time of these wave trains by assuming a S-S single scattering. Estimated scatterers are distributed below the aftershock area and 15-20km depth below the array.