

A diversity of source process of small earthquakes

Kazutoshi Imanishi [1], Minoru Takeo [1], Yoshihisa Iio [2]

[1] ERI, Univ. Tokyo, [2] NIED

<http://www.eri.u-tokyo.ac.jp/Jhome.html>

The purpose of this study is to infer the source process of small earthquakes (wavelength is smaller than several km), which has not been revealed in detail. In previous meeting (The seismological society of Japan, B30, 1998), we proposed a method to estimate fault geometries (dimensions, shapes and orientations of fault plane) and rupture velocities for small earthquakes using stopping phases. We apply this method for several small earthquakes occurred around the source area of 1984 Western Nagano earthquake ($M=6.8$). The result indicates that rupture velocities and rupture propagation of small earthquakes have large variation as like as large earthquakes.