Seismicity transitions in various spatio-temporal scales and their tectonic meanings

Satoshi Harada[1], Akio Yoshida[2]

[1] MRI,JMA, [2] MRI

We developed a method that enables us to see changes in seismic activity in various spatio-temporal scales visually, and we analyzed seismicity transitions in long periods in and around Japan. Following are characteristics of recent seismicity changes of earthquakes with M4.5 or larger in the time scale of several years: Shallow seismicity was active in northern Japan in early 1990s, while it became low noticeably in later 1990s in wide regions from northeastern- through central part of Japan. Deep seismicity in the Pacific slab have been rather low during 1990s especially in the southern region. Characteristics of seismicity transitions in those large spatial scales is expected to reflect tectonic stress change related to the plate motion.