

Precise Monitoring of Philippine Sea Plate Motion

Nobuaki Niitsuma[1]

[1] Inst. Geosci., Shizuoka Univ.

The motion and stress fields are fundamental factors of the subduction mechanism of Philippine Sea Plate. Laser ranging observation has been continued cross the active Kusanagi Fault since 1998, and more than several cm changes have been detected. The maximum distance occurred at middle April 1998 just before the earthquakes in the east off Izu Peninsula, and the minimum distance occurred at the early January 2000 after the earthquakes in Taiwan and Luzon. Because the detected changes are well correlated with earthquakes along the margins of the Philippine Sea Plate and Pacific Plate, the distance measured with laser ranging could be precise monitor of the motion and stress fields of the Philippine Sea Plate.