

SSS031-P02

Room:Convention Hall

Time:May 23 14:00-16:30

Heterogeneous distribution of seismic intensity in the Metropolitan area by MeSO-net

Shin'ichi Sakai^{1*}, Shigeki Nakagawa¹, Kazuyoshi Nanjo¹, Keiji Kasahara¹, Yannis Panayotopoulos¹, Hiroshi Tsuruoka¹, Eiji Kurashimo¹, Kazushige Obara¹, Naoshi Hirata¹, Hisanori Kimura², Tamotsu Aketagawa³

¹E. R. I., Univ. of Tokyo, ²NIED, ³HSRI

The Special Project for Earthquake Disaster Mitigation in the Tokyo Metropolitan Area has been ongoing (2007-2012). Under this project, the Metropolitan Seismic Observation network (MeSO-net), which consists of about 400 observation sites, has been constructed. This network consists of five dense linearly arrayed stations and evenly spaced stations. This five liner arrays focus on observing highly active seismicity, many repeating earthquakes, slow slip area, and historical large earthquakes. The correlations of waveform from local and teleseismic events are high because observation points are deployed at about 2 or 3-km intervals. In addition, identification of any stations of the later phase is easy even if artificial noise is very intense. These widely developed stations have been used effectively for the seismic tomography method. These dense intervals of MeSO-net will induce a more highly resolved structure than previous studies. MeSO-net has observed earthquakes of more than M2.0. Low-frequency waveforms of less than 0.1 Hz have been observed by MeSO-net. The distribution of amplitudes observed at each station show heterogeneous amplification of shaking motions.

The present study is supported by Special Project for Earthquake Disaster Mitigation in Tokyo Metropolitan Area from the Ministry of Education, Culture, Sports, Science, and Technology of Japan.

Keywords: MeSO-net, ultra-dense seismic network, intensity, seismicity, plate structure