

R003-12

D会場 : 11/5 PM2 (15:45-18:15)

17:00~17:15

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On time-series analysis of Network-MT data measured in the Kii Peninsula, southwestern Japan

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The Kii Peninsula is a geoscientifically interesting region because of the existence of high temperature hot springs, the Kumano caldera, and the Deep Low-frequency Tremors (DLTs). Therefore, the subsurface structure of the Kii Peninsula has been investigated by various ways. Among them, electromagnetic method is useful for understanding the spatial distribution of temperature, water and melt beneath the surface. New Energy and Industrial Technology Development Organization (1994), Fuji-ta et al. (1997), Umeda et al. (2003) and Kinoshita et al. (2018) studied the subsurface resistivity structure of the Kii Peninsula with the aid of conventional MT method. Besides these EM studies, Yamaguchi et al. (2009) performed the Network-MT survey in the region almost covering whole Kii Peninsula to elucidate the regional and deep structure. The Network-MT method is superior to the conventional MT method in that it enables us to obtain voltage differences with high S/N ratio especially for the longer period and is relatively free from static effects owing to the long baseline. However, they analysed 2-D resistivity structure by using only a part of the data only on one survey line. Three dimensional analysis is very important to investigate the regional and deep structure because coast line distribution is not 2-D and, in addition, strike of the igneous intrusion is not always consistent with the subduction direction of the Philippine Sea Plate. Therefore, we aim to analyse all the available Network-MT data in the Kii Peninsula. This presentation will describe the results of the time-series analysis.