

2016年熊本地震周辺域の比抵抗構造

2016年熊本地震比抵抗構造研究グループ 相澤 広記 [1]
[1] -

Three dimensional resistivity structure around the rupture zone of the 2016 Kumamoto earthquake

Aizawa Koki Research Group for the resistivity structure around the regions of the 2016 Kumamoto earthquakes[1]
[1] -

Three dimensional inversion of magnetotelluric (MT) data around the focal region of Mw 7.0 Kumamoto earthquake were conducted. Previous MT data (Asaue et al., 2004; Asaue et al., 2007; Asaue et al., 2012) and new MT and telluric data with good data quality were used for the inversion. Total number of sites are seventy-nine. We inverted the full impedance tensor (four complex components: Z_{xx} , Z_{xy} , Z_{yx} , and Z_{yy}) and geomagnetic transfer functions (two complex components: T_x and T_y) by using the code developed by Siripunvaraporn and Egbert (2009). The horizontal mesh size was set to 2000 m in the area around the observation sites and was logarithmically increased with increasing distance from the focal are the Kumamoto earthquake. The model also takes into account the features of topography and bathymetry.

The preliminary result shows two dominant conductive bodies that are located (1) slightly east of the hypocenter of main shock and (2) beneath Aso volcano. The rupture areas of the mainshock (Asano and Iwata, 2016) are sandwiched by the two conductive bodies. We will investigate the spatial correlation to the foreshock migration (Kato et al., 2016) before the Kumamoto earthquake.