# Broad-band magnetotelluric data around the focal region of the 2016 Kumamoto-Oita earthquakes

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The Mj 6.5 and Mj 7.3 Kumamoto earthquakes that occurred on 14 and 16 April 2016 triggered not only the aftershocks around the epicenters, but also triggered the earthquakes 50~100 km far from the main shocks. The aftershocks and the triggered earthquakes that exceed Mj 3.5 are amounted up 230 on 8 May, 2016, and are mainly located on NE-SW lines that may correspond to the westward extension of median tectonic line (MTL). The active seismicity can be divided into three regions, (1) the Futagawa and Hinagu faults (the region around the main shocks), (2) the northern part of Aso volcano, and (3) the region around the Tsurumi and Yufu volcanoes. There are distinct seismically inactive area between these regions. We show the broad-band (200~0.0003 Hz) MT data, which were obtained 1999~2015 around these focal regions. The dataset consists of that around the main shocks (Asaue et al., 2006, 2013; Takakura et al., 2000; Hata et al., 2016), and that around the triggered seismicity (Aizawa et al., 2015, 2016; Shiotani et al., 2015). The apparent resistivity of the sum of the squared elements (ssq) invariant impedance (Rung-Arunwan et al., 2016) shows that the earthquakes occur on the electric resistive zones. The electric conductive zones correspond to the seismically inactive areas. The faults of main shock is located at the boundary between conductive and resistive zones. We will discuss the possibility that the series of earthquakes were guided by the resistivity structure.

The figures is found below.
http://www.sevo.kyushu-u.ac.jp/kumamoto2016/MT2016KumamotoOita.pdf

Acknowledgements
This work is partly supported by MEXT KAKENHI Grant Number 16H06298, MEXT under its Earthquake and Volcano Hazards Observation and Research Program, and
Earthquake Research Institute, University of Tokyo under Joint Usage Program.

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Keywords: resistivity structure, magnetotelluric data, The 2016 Kumamoto earthquake

 