

R003-P04

ポスター 2 : 11/5 AM1/AM2 (9:00-12:30)

福岡県警固断層周辺における広帯域 MT 観測

#井ノ又 伍¹⁾, 相澤 広記¹⁾, 村松 弾^{2,4)}, 安仁屋 智^{2,5)}, 大久保 歩夢^{2,5)}, 上土井 歩佳³⁾

⁽¹⁾ 九大地震火山センター, ⁽²⁾ 九州大学理学研究院地球惑星科学専攻, ⁽³⁾ 九州大学理学部地球惑星科学科, ⁽⁴⁾ 東京大学地震研究所火山噴火予知研究センター, ⁽⁵⁾ 気象庁福岡管区気象台

Broad-band MT observations around the Kego Fault, Fukuoka, Japan

#Tasuku Inomata¹⁾, Koki Aizawa¹⁾, Dan Muramatsu^{2,4)}, Satoru Aniya^{2,5)}, Ayumu Okubo^{2,5)}, Ayuka Jyodoi³⁾

⁽¹⁾ SEVO, Kyushu Univ., ⁽²⁾ Department of Earth and Planetary Sciences, Graduate School of Science, Kyushu University, ⁽³⁾ Department of Earth and Planetary Sciences, Kyushu University, ⁽⁴⁾ VRC, University of Tokyo, ⁽⁵⁾ Fukuoka Regional Headquarters, JMA

We conducted broad-band MT observations of the Kego fault zone (KFZ) in the southeastern part of the Kego fault (KF), which was not ruptured by the 2005 west off Fukuoka earthquake (M7). From 2011 to 2013, various surveys were conducted as a government commissioned project. There were differences in the seismic reflection intensity between the eastern and western sides of the fault, suggesting that KF is located at the region sandwiched by the different lithology. In this study, we conducted broad-band MT surveys on 40 x 80 km area around the Kego fault. Specifically, we aim to investigate how the resistivity structure is correlated with the seismic reflection structure. Another objective is to have an insight why the rupture of the 2005 west off Fukuoka earthquake stopped at the northwestern edge of the Kego fault.

The obtained MT data was greatly affected by artificial noise. However, in the study area, the noise due to the leakage electric current from railways significantly decreases from 0:00 a.m. to 5:00 a.m. Therefore, we have successfully estimated MT response function in the period range from 0.00195 to 3276.8 s. The MT response function indicated the structure is highly three-dimensional. To estimate a realistic structure, we will then perform a 3D inversion analysis, and will show the preliminary resistivity structure.