

33 **Preliminary report on three-dimensional electrical resistivity structure in**
34 **Miyake-jima**

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48 **Abstract**

49 Imaging internal structures of volcanoes is of primary importance in order to improve our
50 knowledge of magma-hydrothermal interactions and consequently, enhance volcanic activity
51 forecasting. Here, we present the first 3-D electrical resistivity model of the Miyake-jima
52 volcano obtained from Magnetotelluric (MT) data. We revealed a large hydrothermal system
53 connected to the main fumarolic area through a fractured region.

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55 **Keywords:** Fumarole, Hydrothermal system, Magnetotellurics, Miyake-jima, resistivity
56 imagery.

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