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Room:Convention Hall

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## 3D magnetic structure of Sakurajima-volcano and Aira caldera.

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In 2007, we carried out the aeromagnetic survey on Sakurajima volcano and Aira caldera to clarify the subsurface magnetic structure. This survey was conducted as a part of the Joint Observations of Sakurajima Volcano in 2007. On this campaign, various surveys, such as geodetic, geothermal, geochemical and geomagnetic surveys were done under the cooperation of the researchers at the university and institute of Japan. On our survey, we made helicopter-borne aeromagnetic measurement with sampling time of 0.1 sec and observation area was NS22.5 x EW 16.5km area which include Sakurajima volcano and most part of Aira caldera. Total flight distance was about 2000km. From the obtained data, we tried to investigate the subsurface magnetic structure beneath Sakurajima volcano and Aira caldera by 3-D inversion. On this calculation, we used the iterative inversion scheme with minimum support stabilizing developed by Portniaguine and Zhdanov (2002). In our presentation, we will show the results of our 3D inversion.

Keywords: aero magnetic survey, 3D magnetic structure