

## Three-dimensional subsurface velocity structure of Kirishima Volcano, Japan

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Three-dimensional subsurface velocity structure of Kirishima Volcano, Kyushu, Japan, was obtained by tomographic inversion with newly developed ray tracer (Nishi, 2001) for volcanic regions. P-wave travel time data obtained by experimental explosions in 1994 and 1996 were inverted. Low velocity anomalies correspond to geothermal area and fault caused by regional extensional stress field were found. Seismicity at high velocity anomaly area and area between low and high velocity anomalies are high whereas low at low velocity anomaly area. High and low velocity anomalies are found at high and low electric resistivity areas respectively. Bouguer anomaly pattern at south of Kirishima Volcano is explained by the distribution of high velocity anomaly at the depth of 1km.