Subsurface Structure and Focal Mechanism in Izu-Oshima Volcano

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3-D velocity stracture of P- and S-waves is determined by the velocity inversion. In shallower depth, we detecte elongated high velocity anomaly in NW-SE direction crossing beneath the caldera. We interpret the high velocity anomaly is due to dike swarms intruded in the volcanic edifice.

Focal mechanisms are infered by using polarities of first motion of P-wave. In western region, these are characterized by strike-slip fault type with from NW-SE to E-W P-axis. The direction of NW-SE P-axis is coincide with the maximum compressive stress of regional stress field. The deviation to the E-W P-axis can be explained by a pressure source inside the island.