

## Crustal Deformation According to Earthquake Swarm Activities and Estimation of the Volcanic Deformation Source at Hakone

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The seismicity in Hakone volcano, central Japan, has been gradually activated since the beginning of January, 2013. The hypocenters of the earthquakes are mainly distributed in the shallow region beneath the central cone of caldera. In synchronization with this seismic activity, tilt changes were detected by the tiltmeter in and around the caldera of Hakone volcano. It is hypothesized that the crustal deformation was caused by pressure from a Mogi point source at a deep part, and a shallow open crack in the caldera. We will present the characteristic of the seismic activity and the source models for crustal deformation associated with this activity.

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