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## Seismicity activity in Hakone volcano remotely triggered by the 2011 Off the Pacific Coast of Tohoku Earthquake

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Seismic activity in Hakone volcano at an epicentral distance of 450 km was remarkably activated just after the 2011 Off the Pacific Coast of Tohoku Earthquake. More than 1600 events were observed in the caldera of Hakone volcano, in the period from 15:00 on March 11 to 12:00 on April 2. To clarify the relationship between the occurrence of the main shock and the induced activity in Hakone volcano, we investigated the spatial distribution of hypocenters and temporal changes of the seismicity, and we examined seismographs of the main shock to find small local events during the passage of the surface waves. Hypocenters determined with the double-difference method mostly distribute in the N-S direction, showing several clusters of the seismicity. Focal mechanisms of major earthquakes are dominantly strike-slip having the P axis in the NNW-SSE direction. These features about the hypocenter distribution and the focal mechanisms are consistent with those of the earthquakes that occur ordinarily in Hakone volcano. The onset of local event was initiated during the Love and Raleigh waves from the main shock, suggesting that large dynamic stress changes of 0.6 MPa dominantly contributed to initiate a sequence of the seismic activity.

Keywords: triggered earthquake, Hakone volcano