The seismicity and focal mechanisms at Tokachi-dake volcano revealed by a temporal and dense seismic network

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To understand the seismicity and mechanisms of earthquakes at Tokachi-dake volcano, we set up a temporal and very dense seismic network in 1998. Earthquakes were concentrated around the crater named 62-II. During this observation, active seismicities were found twice. The second activity was extremely strong. We determined 939 hypocenters around 62-II crater, and found 3 seismic clusters with different focal depths. The mechanism of an earthquake in the shallowest cluster was particularly studied by forward modeling. The best fit focal mechanism suggests that, the source of the earthquake is a horizontal crack opening vertically, which is represented by Compensated Linear Vector Dipole. We will mention the mechanisms of other earthquakes at the meeting

To understand the seismicity and mechanisms of earthquakes at Tokachi-dake volcano located in the middle of Hokkaido Japan, we set up a temporal and very dense seismic network in 1998. 23 seismometers were installed around the most active crater. Earthquakes were concentrated around the crater named 62-II. The observation has been continued from the middle of July to the end of August. During this period, active seismicities were found twice, at the end of July and at the end of September. The second activity was extremely strong. We determined 939 hypocenters around 62-II crater, and found 3 seismic clusters with different focal depths. During the high seismic activity, the focal depth of earthquakes gradually moved to the shallower part. The mechanism of an earthquake in the shallowest cluster was particularly studied by forward modeling. The best fit focal mechanism suggests that, the source of the earthquake is a horizontal crack opening vertically, which is represented by Compensated Linear Vector Dipole (CLVD). We will mention the mechanisms of other earthquakes at the meeting