



Seismicity Characterization with Dense Nodal Seismic Array in the Tatun Volcano Group, Northern Taiwan

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The Tatun Volcano Group (TVG) locates in the north part of Taiwan, where is only 15 km away from the downtown Taipei. Around a thousand microseismic events happened in the TVG area per year. Events occurred in TVG are clustered around the Mt. Cising and Dayoukeng, in where hydrothermal activity are high from geochemical observations. It worth to note that the seismicity in Dayoukeng showed the vertical alignment, may be related to the local hydrothermal activity process. A dense seismic array around Dayoukeng would provide more information of microseismic event migration. We conducted a seismic array surrounding Dayoukeng since November 2018 with 157 three-component Fairfield Nodal Z-Land to record seismic signal continuously. With such a dense seismic array within 2 km, the signals induced by pressure change, fluid injection, fumarole degasing or other mechanism would be recorded clearly. We can precisely locate the local micro events and characterize the levels of microseismicity. A comparison between broadband and nodal seismic station would be made to check the resolution of data.