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# Passive seismological monitoring at Merapi volcano

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Seismological monitoring of volcanoes is traditionally focused on the observation of seismicity. However the continuous seismological data acquired for this purpose proved much more useful than initially thought. With new approaches of seismic interferometry one can make use of the recorded ambient seismic noise to monitor changes in the volcanic edifice in a continuous fashion. It has been demonstrated that changes in the stress state, the opening of cracks, the migration of fluids and changes in the hydrological system can be observed by analyzing the seismic noise. This makes the noise based passive image interferometry an ideal tool for volcano monitoring. Here we present a previous investigation that identified hydrological changes on the flanks of Merapi volcano with seismological means.