



The monitoring seismic network of Mt. Vesuvius.

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Mt. Vesuvius (South Italy) is one of the most hazardous volcanoes in the world. It has been very active from 1631, when a violent subplinian eruption occurred, until 1944, with the last, medium size, eruption. So far Mt. Vesuvius is quiescent and in the last 60 years the population of the surrounding areas strongly increased. Its activity is characterized by a fumarolic field inside the crater and a moderate seismicity, with hypocenters mainly clustered in a volume about 2-5 km beneath the crater zone. The monitoring network of Mt. Vesuvius is composed of 15 seismic stations (seven 3 component and 9 vertical) and two seismic arrays, one with just 3 stations and the other one with 48 channels. The remote instruments continuously transmit the data to the recording centre by using different technological solutions. The data are collected in the monitoring centre of the Vesuvius Observatory - INGV and automatically processed in order to obtain meaningful information in real time. This system allow to immediately retrieve the significance of the recorded phenomena and to early communicate the state of the volcano to Civil Authority.