



The real-time multiparametric network of Ischia

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Ischia is an active volcanic complex, which erupted the last time in 1302. Its recent geological history is dominated by the earthquake of 1883, which seriously affected Casamicciola Terme, and the other municipalities of the island. On 21st August 2017, the $M_d=4.0$ earthquake located below the town of Casamicciola Terme addressed the media attention to this volcanic island that was seismically monitored since 1885 by Giulio Grablovitz (1846-1928) who installed a seismic tank (an instrument capable of measuring and recording on paper the oscillations of the water contained in a tank, with respect to the ground) in the Casamicciola Observatory.

The Osservatorio Vesuviano is the INGV division charged of the Ischia monitoring. The first seismic station was installed in Casamicciola Observatory in 1993 and since then the seismic monitoring of the island is going up. The real time monitoring of this volcanic island involves several geophysical fields and the data are transmitted by a wide data-communication wired on radio infrastructure to the Monitoring Centre of Osservatorio Vesuviano:

- The seismic network counts of 4 station sites with velocimetric, accelerometric and infrasonic sensors. The data are sent in real time to the Monitoring Centre.
- The GPS network counts of 6 stations located on the island. All the procedures for remote stations managing (raw data downloading, data quality control and data processing) take place automatically and the computed data are shown in the Monitoring Centre.
- The tiltmetric network consist of 3 digital borehole stations distributed around the island. Each tiltmetric station is equipped with a temperature and magnetic sensor.