

Geosciences Colloquium 2022



05.05.2022 h:16:00 on Zoom

Multiparametric monitoring of active volcanoes in Sicily

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<https://us06web.zoom.us/j/84597740198?pwd=RHZYQ2loV05EcmVpamNScTdOY2ZpUT09>

Since December 2020, a series of powerful lava fountain episodes have occurred at the South-East Crater (SEC) of Etna volcano. The SEC activity was characterized by short and intense episodes of column-forming lava fountains that caused tephra fallout, lava flows and sometimes pyroclastic flows in the summit area of the volcano. The fountain activity led to several km-high eruptive columns, up to 10-12 km a.s.l. in some cases, producing abundant lapilli and ash fallout on the flanks of Etna and ash fallout in eastern Sicily and southern Calabria. The formation of an almost continuous tephra deposit caused considerable damage to the surrounding cultivated areas significantly impacting the economy of the Etna region. During the eruptive crisis, routine and new monitoring, surveillance and communication activities were carried out by Osservatorio Etneo and Sezione di Palermo following scheduled protocols developed side by side with civil protection authorities at the national, regional and local levels. In particular new near- and real-time volcanological, geochemical and geophysical data were collected and potential eruptive scenarios developed to gain insights into the on-going phenomena and to forecast their evolutions.