

Colloqui della Classe di Scienze

Anno Accademico 2024/2025

Sala Azzurra
Palazzo della Carovana
Scuola Normale Superiore
Piazza dei Cavalieri, 7 - PISA

29 JANUARY 2025
h 3.00 p.m.

STEFANO BRANCA
Istituto Nazionale di Geofisica e Vulcanologia, Catania

Etna 1971 between history and volcanology

ABSTRACT:

The 1971 eruption represents a benchmark in the recent history of Etna volcano. From a volcanological point of view, this eruption was characterised by complex intrusive dynamics associated with significant ground deformation that induced the activation of the Moscarello seismogenic fault and the formation of a new summit crater: the Southeast Crater. At the same time, the 1971 event marks an important change in the eruptive style and composition of the magma towards products richer in K. It is no coincidence that, over the next fifty years, there would be an increase in the frequency of summit and flank eruptions and associated output rate. From an historical viewpoint, the eruptive event of 1971 was the first important flank eruption studied by the International Institute of Volcanology: the analysis of the scientific articles on this activity reveals a greater multidisciplinary content in the descriptions and explanations of volcanic activity. Particularly important were the collaborations of British and French research groups that, together with their Italian colleagues, succeeded in giving a complete picture of the eruption and describing the state of knowledge on the Sicilian volcano. The multidisciplinary methodology used to study this eruption is still valid today.

