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## Structural and temporal characterization of volcano-tectonic faults in the Campi Flegrei caldera, southern Italy

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The Campi Flegrei volcano is a 12 km wide nested caldera in southern Italy. In the last 15 kyr, over 70 eruptions occurred, clustered in time and space and interspersed by centuries- to millennia-long quiescence periods. The vent sites of the major explosive volcanic eruptions are associated with caldera ring faults, intra-caldera fault zones, and regionally-controlled fault systems. This study focuses on caldera-scale deformation structures hosted in both volcanic and marine successions of the last 15 kyr, exposed inland and detected offshore on seismic reflection profiles. In particular, we describe structural variations that faults display in both their dip and strike directions, and how these relate with fault dip angle, mechanical stratigraphy, and time. While at continental outcrops, except for a few exceptions, only 2D observations are available, in the offshore sector of the caldera we are able to study 3D fault characteristics using a dataset of dense seismic reflection profiles. In this sector, we have the chance to characterize and compare both the faults that bound the caldera and those developed at its center. Furthermore, by using a template for the marine stratigraphy, we obtained information on the timing of the faults. Preliminary results suggest that faults activate in a time frame broadly corresponding to the intense volcanic activity epochs suggesting a strong link between the fault activity and volcanic unrests.