

SAFE Project: An improved integrated system of earthquake physics study from ground and satellite observations

Angelo De Santis (1), Giorgiana De Franceschi (1), Rita Di Giovambattista (1), Loredana Perrone (1), Lucilla Alfonsi (1), Gianfranco Cianchini (1), F. Javier Pavón-Carrasco (2), Claudio Cesaroni (1), Luca Spogli (1), Alessandro Piscini (1), Dedalo Marchetti (1), Anna De Santis (1), Giulia D'Angelo (1), Elvira Musicò (1), Andrea Malagnini (1), Leonardo Amoruso (3), Marianna Carbone (3), and Cristoforo Abbattista (3)

(1) INGV, Istituto Nazionale Geofisica e Vulcanologia, Roma, Italy (angelo.desantis@ingv.it), (2) Universidad Complutense de Madrid, Spain, (3) Planetek Italia, Bari, Italy

The Swarm satellite mission by ESA has the primary goal to measure the magnetic signals from the Earth to get new insights of the geomagnetic field and its sources. The SAFE ("Swarm for Earthquake study") project (funded by ESA in the framework "STSE Swarm+Innovation", 2014) aims at applying the new approach of geosystemics to the analysis of Swarm satellite electromagnetic data for investigating the preparatory phase of large earthquakes. The main objective of the project is to explore the possible link between large earthquakes and precursory electromagnetic anomalies detected by Swarm and ground based data (seismic, magnetic, GNSS, etc.). This work will show some recent case studies analysed in the framework of the project.