



Comparing two years of TIR satellite measurements and seismic records during the ongoing seismic sequence on the Pollino (Italy) mountain range.

Nicola Genzano (1), Carolina Filizzola (2), Mariano Lisi (1), Marco Mucciarelli (1), Valerio Tramutoli (1,2)

(1) University of Basilicata, School of Engineering, DIFA, Potenza, Italy (valerio.tramutoli@unibas.it), (2) Institute of Methodologies for Environmental Analysis of the National Research Council, Tito Scalo (PZ), Italy

The ongoing seismic sequence on the Pollino mountain range (2010-2013, maximum magnitude 5.0) provides a test for possible precursory patterns both from seismic catalogue and other observations.

In this paper more than two years of TIR anomaly maps - generated by applying the RST (Robust Satellite Technique) approach to MSG/SEVIRI data over Italy (since October 2010) are analyzed looking for possible relations of persistent space-time anomalous transients with local seismic patterns and/or major (single) seismic events.

The analysis of the catalogue shows first of all the problem of apparent variations due to the densification of the seismic network from one side and to the influence of weather conditions on completeness from the other.

Even above a safe completeness threshold it is not easy to identify stable patterns, and some hypotheses that seemed very viable at a certain point of the sequence proved to be false after a while.

The analysis of TIR anomaly maps performed within areas of different dimension (up to the Dobrovolsky radius for an EQ of M=5) around the position of the main shock, shows quite particular TIR signal behaviors (both in terms of punctual intensity and spatial distribution of anomalous patterns) around the time (starting about 2 weeks before) and the location of the main shock.

The sequence is still ongoing at the moment of abstract submission and thus no definitive results can be given at the moment.