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Recent achievements on the application of Robust Satellite Techniques to the short-term seismic hazard forecast

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Robust Satellite Techniques applied to long-term satellite TIR (Thermal InfraRed) radiances have been, since more than 25 years, employed to identify those anomalies (in the spatial/temporal domain) possibly associated to the occurrence of major earthquakes.

The results until now achieved by processing multi-annual (more than 10 years) time series of TIR satellite images collected in different continents and seismic regimes, showed that more than 67% of all identified (space-time persistent) anomalies occur in the pre-fixed space-time window around

the occurrence time and location of earthquakes ($M \geq 4$), with a false positive rate smaller than 33%.

Moreover, Molchan error diagram analysis gave a clear indication of non-casualty of such a correlation, in comparison with the random guess function.

After the most comprehensive test performed over Greece, Italy, Turkey and Japan, here, we will critically discuss the preliminary results achieved over California by applying RST analyses to long-term series of GOES-17 radiances.