

## **Variation of some Planetary seismic hazard indices on the occasion of Lefkada, Greece, earthquake of 17 November, 2015.**

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By the term “Planetary seismic hazard indices” we mean parameters or observables which indicate the degree of the mutual interactions of tectonic active areas on the earth surface with some parts or phenomena of the Geosphere and the near Earth space. In this paper we investigate the variation of the tidal triggering effect efficiency, by means of the tidal seismicity compliance parameter  $p$ , (Arabelos et al. 2016, Contadakis et al. 2009, Contadakis et al. 2012, Vergos et al. 2015), as well as the lower Ionosphere variations, by means of the variation of the High-Frequency limit,  $f_o$ , of the ionospheric turbulence content (Contadakis et al. 2009, Contadakis et al. 2012, Contadakis et al. 2015) with the time and space proximity to the site of the earthquake occurrence. The results of our investigation are: (1) The mapping of the tidal seismicity compliance parameter  $p$ , over the Greece indicate an increasing tectonic stress criticality for the year 2015 of the area of Ionian islands in relation to other areas in Greece, pointing to the area of a possible strong earthquake. (2) The High-Frequency limit  $f_o$ , of the ionospheric turbulence content, measured analyzing TEC variations, increases as the site and the moment of the earthquake occurrence is approaching, pointing to the earthquake locus. (3) Finally, The analyzed data from the receiver of INFREP network in Thessaloniki (Skeberis et al. 2015), Greece (40.59N, 22,78E), which monitor VLF transmitters based in Tavolara, Niscemi, Italy, Keflavik, Iceland, and Anthorn, UK show that the signals from the two VLF European transmitters, transmitted over Lefkada, indicate enhanced high frequency variations, in accordance to the result of the TEC analysis, the last ten days before the moment of the earthquake occurrence.

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