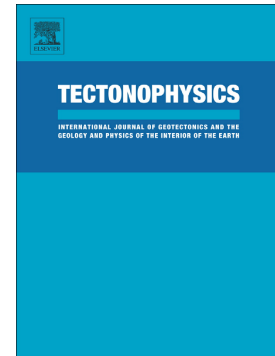


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Intermittency-induced criticality in the lower ionosphere prior to the 2016 Kumamoto earthquakes as embedded in the VLF propagation data observed at multiple stations

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Abstract

A network of 8 VLF/LF receivers has recently been established across Japan, receiving subionospheric signals from different transmitters located both in the same and other countries. The primary purpose of this network is to study disturbances in the VLF/LF propagation through the lower ionosphere in possible relation to earthquake (EQ) preparation processes. Ionospheric perturbations of possible seismic origin have long been investigated and considered very promising for short-term EQ prediction. The raw amplitude data on reception of the above-mentioned network, after being appropriately filtered, were analyzed by means of the method of critical fluctuations (MCF) in analogy to thermal critical systems. The MCF analysis of the

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