



Study of time dynamics of seismicity for the Mexican subduction zone by means of the visibility graph method.

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By using the method of the visibility graph (VG), five magnitude time series extracted from the seismic catalog of the Mexican subduction zone were investigated. The five seismic sequences represent the seismicity which occurred between 2005 and 2012 in five seismic areas: Guerrero, Chiapas, Oaxaca, Jalisco and Michoacan. Among the five seismic sequences, the Jalisco sequence shows VG properties significantly different from those shown by the other four. Such a difference could be inherent in the different tectonic settings of Jalisco with respect to those characterizing the other four areas. The VG properties of the seismic sequences have been put in relationship with the more typical seismological characteristics (b-value and a-value of the Gutenberg–Richter law).

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