



Kolmogorov entropy: possible predictive signs of Landers (1992) and Hector Mine (1999) Southern California earthquakes

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The seismic activity of Landers and Hector Mine aftershock areas is analysed from the viewpoint of fractal theory, more specifically, with concepts of reconstruction theorem. The database consists on the seismic activity recorded by the SCSN since 1987 up to 2007 in the aftershock area of Landers (Mw 7.3, 1992) and Hector Mine (Mw 7.1, 1999) earthquakes (Southern California). The recording period considered includes low magnitude seismicity previous to earthquakes, the mainshocks and their aftershock activity, and the subsequent periods of low magnitude activity. In every one of the aftershock areas, series of distances between consecutive earthquakes are computed years before and after the mainshocks, as well as along the aftershock periods. For these series of distances, the correlation curves and Kolmogorov entropy are computed for different moving windows, with the appropriate length for a right application of the reconstruction theorem. The evolution of the Kolmogorov entropy is analysed all along the recording period, with the aim of trying to identify possible predictive signs of a forthcoming mainshock.