



Statistical analysis of the Central-Europe seismicity

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The aim of this paper is to characterize the spatio-temporal distribution of Central Europe seismicity. Specifically, we provide some constraints on the time behavior of earthquake generation mechanism, through the usage of a non-parametric statistical strategy that leads up to the empirical estimation of the hazard function. The results indicate that the most characterizing feature for the occurrence of earthquake with magnitude $M 4.0+$ is a time clustering lasting few years, suggesting that the probability of occurrence increases immediately after a previous event. After that, the process becomes almost time independent, as in a Poisson process. Furthermore, we investigate the cluster properties of the seismicity of Central Europe, by comparing the obtained result with the one of synthetic catalogs generated through a specific ETAS model, successfully applied to describe aftershock sequences. Remarkably, a similar behavior has been previously found for Italy using a high magnitude threshold.