



Seismic Stress Interaction among active Faults in Central Italy: implications on the spatio-temporal earthquake distribution

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We selected the active faults responsible for moderate to large magnitude earthquakes in Central Italy to study the effect on the spatio-temporal distribution of earthquakes due to stress interactions. The main parameters of each structure are confidently assessed. Then, we study the evolution through time of the faults system by modeling the seismogenic processes and the interaction among faults by means of the tectonic loading and the co- and post-seismic stress variations. Here, we present the results of a simulation that mimics the behavior of the real faults system. The fault model previews, in absence of interaction, a fixed inter-event time and an event is generated when a stress threshold is overcome. The evolution of this system under different initial conditions provides several synthetic catalogs of seismic events, whose spatio-temporal distributions give information on how interactions may affect the behavior of single or group of structures.