Geophysical Research Abstracts,
Vol. 11, EGU2009-2879, 2009
EGU General Assembly 2009

Study of two seismic series in Moron de la Frontera (Seville, SW of Spain) in 2007

E. OCAÑA (1), D. STICH (1,2), F. VIDAL (1,2)

(1) INSTITUTO ANDALUZ DE GEOFÍSICA. UNIVERSIDAD DE GRANADA, GRANADA, Spain (ELENA@IAG.UGR.ES), (2) DEPARTAMENTO DE FÍSICA TEÓRICA Y DEL COSMOS. UNIVERSIDAD DE GRANADA, GRANADA, Spain

During the year 2007 two seismic sequences occurred in the proximity of Moron de la Frontera town (Seville, SW of Spain), a region where several important local and regional earthquakes have historically occurred. The first sequence, with more than 150 earthquakes ($m \leq 3.5$), began early in January, and later, from June to September 2007, a new series of about 300 earthquakes ($m \leq 4.5$) took place in the same location. A spatio-temporal characterization of these seismic sequences has been performed through two different approaches: a master event relative location of the events and a statistical analysis through Principal Component Methodology. The results obtained for each series are excellently in line with the trends indicated by the nodal planes of the focal mechanisms calculated for the greater earthquakes of the series.