



Triggering effects during the seismic sequence of Central Italy in 2016

Gerassimos Papadopoulos (1), Athanasios Ganas (1), Apostolos Agalos (1), Antonia Papageorgiou (1), Ioanna Triantafyllou (1), Charalambos Kontoes (2), and Ioannis Papoutsis (2)

(1) NATIONAL OBSERVATORY OF ATHENS, INSTITUTE OF GEODYNAMICS, ATHENS, Greece
(ioannatriantafyllou@yahoo.gr), (2) NATIONAL OBSERVATORY OF ATHENS, INSTITUTE OF ASTRONOMY,
ASTROPHYSICS, SPACE APPLICATIONS AND REMOTE SENSING, ATHENS, GREECE

A series of strong earthquakes hit Central Italy on 24 August (event 1), 26 October (event 2) and 30 October 2016 (event 3) with magnitudes of 5.9, 6.0 and 6.5, respectively. The hypothesis that there was possible triggering of the event 2 by event 1 as well as of event 3 by events 1 and 2 was tested. We performed analysis of the rupture histories of the three events by inverting teleseismic P-wave records at distances between 30 and 90 degrees as well as calculation of Coulomb stress transfer and of the ground deformation as inferred from InSAR images. At all evidence the hypothesis was verified. In addition, the seismic potential in the area after the event 3 was examined and found that it is high mainly towards NW of event 3.