



Earthquake-induced ground deformation: case study of June 8, 2008 Peloponnesus, Greece event

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A strong earthquake ($M_w=6.5$) occurred onshore the area of NW Peloponnesus, Greece on June 8, 2008. The event caused by a dextral strike slip fault according to the focal mechanisms and generated severe secondary effects and structural damages mainly in the direction of the fault. Rockfalls and liquefaction phenomena were widespread and induced structural damages and ground deformation, respectively. Characteristic manifestations of liquefaction were reported in the area of Kato Achaia and Roupakia while rockfalling phenomena were triggered close to the epicenter at the foot hills of the mountain Skolis.

In this study was examined the liquefaction-induced features and information regarding the grain size characteristics and the values of Atterberg limits are provided. In addition, a study was carried out regarding the large-scale rockfalls that were generated at the foot hill of mountain Skolis causing damages to man made environment. In particular, GIS-based approaches were applied in order to define the run-out distances in the area while simulation of selected fall tracks was performed in order to evaluate the basic parameters of the down slope movement of the boulders.