

عنوان مقاله:

SOURCE OF THE EARTHQUAKE DOUBLET OF 11TH AUGUST 2012, NORTHWESTERN IRAN, FROM
OBSERVATION OF GLOBAL SEISMIC ARRAYS AND LOCAL NETWORKS

محل انتشار:

هفتمین کنفرانس بین المللی زلزله شناسی و مهندسی زلزله (سال: 1394)

تعداد صفحات اصل مقاله: 8

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خلاصه مقاله:

On August 11, 2012 two catastrophic earthquakes with moment magnitudes of 6.4 and 6.2, respectively, only 11 minutes and circa 5 kilometers apart, struck northwestern Iran which caused hundreds of casualties and left thousands of people homeless. Based on the analysis of data from global seismic arrays and also those of the local and regional seismic networks, the hypocentral depth and mechanism of the first event and also the mechanism of the second earthquake have been determined. While the first event with complex rupture history, unusual for an earthquake of such magnitude, released the bulk of its energy through a mainly strike-slip dislocation in a second subevent, approximately 5 seconds following the P onset and at a depth of around 5 kilometers, the second earthquake, shows a mainly reverse faulting and seemingly simple rupture history and deeper hypocentral depth. Both events have occurred where no active fault had been mapped in their vicinity and once again questions have been raised as to how much weight in seismic hazard assessments should be placed on known active faults.

کلمات کلیدی:

Seismic Array, Hypocentral Depth, Seismic Source, Earthquake Mechanism

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