



The Mw 6.2 Leonidio, southern Greece earthquake of January 6, 2008: Preliminary identification of the fault plane.

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An attempt to quickly identify the rupture plane of the Leonidio (2008/01/06) intermediate depth earthquake is presented. The earthquake produced minor damage to the city of Leonidio and surroundings, but was felt all over the Greece, and also in several places of the southern Italy. The new methodology is based on combining the moment tensor waveform inversion at 11 near-regional stations at frequencies up to 0.07 Hz (where the spatial resolution of the centroid position is of the order of a few kilometers), and the location based on manual P- and S-wave picks at 14 stations. Combining the hypocenter position (Lat 37.09° N, Lon 22.80° E, depth 69 km), centroid position (Lat 37.15° N, Lon 22.95° E, depth 65 km), and the two possible fault planes (strike, dip, rake I: 119°, 87°, 124°; II: 213°, 34°, 5°), the earthquake appears to have ruptured the low-dip fault plane II. The result is in agreement with the shortening of the subducting plate in a direction parallel to the trend of the Hellenic arc. The preliminary report was submitted within one week after the event on the EMSC web page (the Earthquake news & highlights).