



Characteristics of seismic source in the Taiwan mountain area

Win Gee Huang

Institute of Earth Sciences, Academia Sinica, Taipei, Taiwan (wgee@earth.sinica.edu.tw)

Two moderate-sized shallow earthquakes in Nanto occurred on 27 March (ML 6.2) and on 2 July (ML 6.5) 2013 in the region of Taiwan mountain area. It has an average height of 2500 meters previously lack of seismic data. In response to the demand of seismic data, we deployed a Taiwan mountain seismic network. The network began with sixteen stations in 2006 and increased to eighty stations in 2015. The station distribution provides many near-source data for the area of the 2013 Nanto earthquakes. Of those stations, the largest recorded horizontal peak ground acceleration is 1306 gal (~ 1.3 g). In the current work, we present a preliminary analysis from the near-field observations and examine the effects of site geology on the response spectra of the recordings associated with two earthquakes. Applying Brune's source model (1970), we are also able to detail the source parameters (stress drop, seismic moment) for both events from local stations.