



## **Topographic amplification across a taiwanese ridge**

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A line of 6 broadband seismometers have been deployed across a ridge in the Hualien County (Eastern Taiwan) in order to study topographic amplification. Since March 2015, the network has been continuously recording waves incoming from the Taiwanese regional seismicity. The hill is well approximated by a triangular topography of 3600m in length by 900m in height. We present a preliminary analysis performed over a dozen of earthquakes selected from the Seismic Taiwanese catalog (CWBSN). We show that most of the Uphill records exhibit a systematic amplification of seismic waves (peak to peak of particle velocity) in the relevant frequency band [0.5-2Hz]. By contrast, energy within the larger frequency band [6-20Hz] reflects local site effects induced by the soil layer. We report amplification ratios ranging from ranging from 1.2 to 3 and from 1.8 to 4 for P and S waves respectively. We show that amplification processes at the top strongly depend on the parameter  $\alpha$  defined as the angle between the azimuth of incoming wave and the azimuth of the ridge divide.