



Microseism Sources Observed with Seismic Arrays and an OBS Network in Ireland

David Craig, Chris Bean, and Florian LePape

Dublin Institute of Advanced Studies, Geophysics Section, iCRAG, Dublin, Ireland (davcra@cp.dias.ie)

Ocean generated microseisms are ground vibrations largely caused by ocean wave activity. Their generation can occur in deep water beneath large storms or in near coastal regions. In this study we use two small-scale seismic arrays located in Ireland and an OBS network off the north-west coast of Ireland to study microseism generation and propagation effects. The array locations are compared to seafloor measurements of microseism power levels and differences between the two are identified. This is interpreted as being the result of 3 dimensional propagation effects at or near the shelf edge. Body wave signals from a deep ocean region are also identified, the locations of which compare well with the modeled source distributions from the WAVEWATCH3 ocean wave model (Ardhuin et. al. 2011).