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Press Release

On April 11th, 2012, a major earthquake (magnitude 8.6) struck several hundred kilometres offshore Sumatra. The earthquake occurred at a depth of 23 km, 440 km southwest from the city of Banda Aceh, Indonesia, at 15:38 local time (08:38 GMT). It was followed by a large, magnitude 8.2, aftershock just over two hours later and numerous smaller aftershocks. Tsunami alerts were issued across the Indian Ocean basin, but the reported wave heights have been small, less than 1 meter.

Earthquakes offshore Sumatra are associated with the subduction of the Indian tectonic plate beneath Indonesia. On December 26, 2004, a magnitude 9.1 event in the same region caused a large vertical displacement of the sea floor and a catastrophic tsunami, claiming 227,898 lives. Unlike the 2004 event, which occurred on the interface of the two tectonic plates as one slid under the other, the present earthquake (April 11th, 2012) was associated with the internal deformation of the Indian tectonic plate, further offshore. The earthquake had a “strike-slip” mechanism and involved primarily horizontal displacements of the sea floor, thus not causing a large tsunami.

The seismic waves generated by this large earthquake were recorded by the Irish National Seismic Network, at our stations in Donegal, Dublin, Galway and Kerry. The earthquake has also been recorded at over 50 schools in the Seismology in Schools Project in Ireland, which is part of the DIAS outreach programme.

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