

1.5-P14. Determination of Slip Distribution of the 11 April 2012 Outer Rise Sumatra Earthquake ($M_w = 8.6$) Using Tsunami Waveform

On 11 April 2012 was occurred large earthquake with $M_w = 8.6$ in western part of Sumatra. This earthquake was unique because did not occurred in subduction zone but in outer rise of Indo-Australia plate. The 2012 outer rise earthquakes have strike-slip type for their source mechanism and generate small tsunami. We estimate the slip distribution of the 2012 outer rise earthquake using inversion of the tsunami waveform. We used 3 tide gauge and 5 DART data from IOC and NOAA respectively to perform the inversion. We assumed that the fault length was 350 km and the width was 150 km. The asperity occurred in around of epicenter with the maximum slip amount was 53.12 m with total seismic moment that calculated by the slip distribution was 1.13×10^{22} Nm ($M_w = 8.6$).

Primary author: YATIMANTORO, Tatok (Indonesian Agency for Meteorology, Climatology and Geophysics (BMKG))

Presenter: YATIMANTORO, Tatok (Indonesian Agency for Meteorology, Climatology and Geophysics (BMKG))

Track Classification: 1. The Earth as a complex system