

T1.5-P29. New Evidence the Tsunami Source of the 11 September 1921 Java Earthquake

The 1921 earthquake was occurred in the Java trench and located between two tsunami earthquake of 1994 (Banyuwangi) and 2006 (Pangandaran) south of Java. The 1921 earthquake also generate tsunami that recorded in tide gauge of Cilacap with maximum height of tsunami is around 10 cm. From paleo tsunami study we found the tsunami deposit of the 1921 earthquake in around of Cilacap, Yogyakarta, and Banyuwangi beach. We suppose that the 1921 earthquake have strike-slip type for the source mechanism. We perform the numerical tsunami simulation to estimate the source of the 1921 earthquake. We used the tide gauge data from Cilacap and also tsunami deposit data in Cilacap, Yogyakarta, and Banyuwangi to validation the tsunami model. We estimate the fault length was 275 km and width was 125 km. The total seismic moment by the calculation was 5.7×10^{20} Nm ($M_w = 7.6$).

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