Geophysical Research Abstracts, Vol. 7, 01856, 2005

SRef-ID: 1607-7962/gra/EGU05-A-01856 © European Geosciences Union 2005



Comparison of two global tsunamis in the Indian Ocean: 1883 Krakatau volcano eruption and 2004 Sumatra earthquake

E. Pelinovsky (1), B.H. Choi (2), I. Didenkulova (1), A. Zaitsev (1)

(1) Institute of Applied Physics, Nizhny Novgorod, Russia (pelinovsky@hydro.appl.sci-nnov.ru), (2) Sungkyunkwan University, Korea

The last catastrophic tsunami occurred on December 26, 2004 after the strong Sumatra earthquake (magnitude 9) pays to attention to the previous giant phenomenon in the Indian Ocean. Authors have recently investigated the 1883 Krakatau volcanic eruption generated a destructive tsunami higher than 40 m on the Indonesian Coast where more than 36,000 lives were lost [1,2]. Sea level oscillations related with the Krakatau event have been reported on significant distances from the source in the Indian, Atlantic and Pacific Oceans. Present paper gives the comparable analysis of tide-gauge records and witness reports of both global tsunamis for several locations in the Indian Ocean (Sri Lanka, India, Mauritius and South Africa). Results are compared also with predictions of the numerical models of giant tsunamis.

References:

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