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# Tsunami and earthquake: in search of general relationships

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Studying generation of tsunamis or other oceanic phenomena of seismotectonic origin it is often necessary to know general relationships between parameters of the tsunami source and characteristics of the earthquake. Existing empirical relationships, due to essential data scattering, provides poor accuracy which is not appropriate for some estimations. In this work empiric-analytical approach is employed to give a more precise definition to the general relationships between parameters of a tsunami source (amplitude of the co-seismic deformation of bottom, ousted volume and potential energy of initial elevation) and the earthquake magnitude and depth. The approach involves the scaling laws by Kanamori and Anderson, the definition of the seismic moment and the Okada formulae. Particular features of some recent tsunami sources, for those USGS provides slip distribution data (finite fault), are considered on the background of the general relationships.