

Interactive comment on “Probabilistic tsunami inundation assessment of Kuroshio Town, Kochi Prefecture, Japan considering the Nankai-Tonankai megathrust rupture scenarios” by Katsuichiro Goda et al.

Anonymous Referee #1

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This research work fills a gap in tsunami hazard studies related to the Nankai-Tonankai megathrust as it considers a large number of rupture histories with high-resolution elevation data that allows to address tsunami hazard on a regional and local scale in probabilistic terms.

Building on the 11 ‘official’ CDMC rupture models stochastic rupture events are established – 500 for each of two magnitude ranges. An established scaling relationship is used, very extreme events ignored and compatibility with the CDMC models assured. The wave propagation and inundation modelling are performed with the well-

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established code TUNAMI.

Tsunami inundation area is used as hazard parameter that typically scales with losses in populated areas. These values are studied in relation to source characterizations such as magnitude, slip ratio and tsunami potential energy with focus on the Ogata and Saga districts. It is found that the tsunami potential energy is a good proxy for inundation in the studied cases.

The authors are globally the leading researchers in tsunami hazard and risk evaluation. The paper addresses a new problem and is technically first class. The results are highly relevant for disaster risk management and are presented and discussed in a concise and clear way.

I found a typo in line 431 where ‘exiting evacuation towers’ should be replaced by ‘existing evacuation towers’.

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