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Modeling of potential landslide tsunami hazards off western Thailand (Andaman Sea)

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Content :

We model several scenarios of potential submarine landslide tsunamis in the Andaman Sea off the Thai west coast. Our results suggest that landslides may be capable of producing significant tsunamis. Two categories of submarine landslide scenarios were evaluated. Geometry parameters of the first category are taken from identified mass transport deposits (MTDs); the second category considers a potentially unstable block identified in seismic data. Our preliminary modeling approach shows that run-up values may reach significant tsunami heights for some scenarios. We point out that our results have to be regarded as only preliminary due to several limitations in our modeling approach. Our results, however, show the need for more sophisticated modeling of landslide tsunamis, especially regarding the failure process and inundation on dry land

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