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The recent development on a new triangular-based adaptive mesh finite element numerical model for tsunami propagation (and inundation) simulations

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ABSTRACT

A new triangular-based adaptive mesh finite element numerical model for tsunami propagation (and inundation) simulations, called TsunaFLASH, have been developed and successfully validated up to a certain level [Pranowo et al., 2008; Pranowo and Behrens, 2009]. This approach is meant for improving the computational efficiency and accuracy.

We will present the recent results of an investigation on the bottom friction and smagorinsky difussivity term applied for the test case of Andaman minor tsunami 2009, a sensitivity test for the adaptation algorithm, and more simulation based on the diverse source model for the Sumatra-Andaman 2004 events.