

# Recent Advances on Agent Based Tsunami Evacuation Simulation: Case Studies at Indonesia, Thailand, Japan and Peru

**Erick Mas, Ph.D.**

Assistant Professor, Laboratory of Remote Sensing and Geoinformatics for Disaster Management  
International Research Institute of Disaster Science, Tohoku University

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**3:00-3:30 pm Coffee Hour**

**3:30-4:30 pm Seminar**

## Abstract

Through tsunami numerical models, tsunami researchers have worked on the understanding of the physics of tsunami events. Efforts to comprehend not only the natural phenomena but also the social complex behavior have been conducted in recent years. In practice, organizing recurrent evacuation drills in a community demands budget, resources and community participation. Instead, numerical and social models can be used as a tool to explore mitigation policies, residents' behavior, disaster impact, etc. In this presentation we will discuss the strengths and limitations of tsunami evacuation simulation by introducing an agent-based model as an example of a disaster mitigation tool. Tsunami evacuation simulation contributes to the analysis of future implementations on tsunami mitigation and countermeasures (i.e. new infrastructure for sheltering, social education, emergency support, etc.). Case studies such as bottleneck and congestion analysis in evacuation routes, demand and spatial distribution of shelters, human behavior on emergency and in general casualty estimation due to tsunami, will be presented.

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Please join us for the coffee hour at the seminar venue a half hour before the seminar, 3:00 – 3:30 pm