

Simulation and analysis of asteroid-generated tsunamis

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- GeoClaw used to simulate airburst generated tsunamis using shallow water eq.
- Model of air burst pressure wave based on ground footprint. Derived from 3D entry simulation by Mike Aftosmis, ranging from 5 to 250 Mt
- Analysis of 1D model problem describes expected behavior very well. Main results:
 - response proportional to depth of water
 - for blast waves moving faster than water speed, water wave height is positive for positive pressure forcing
- Computational results shown for Westport, WA and Long Beach, CA.
- Modeling Issues

