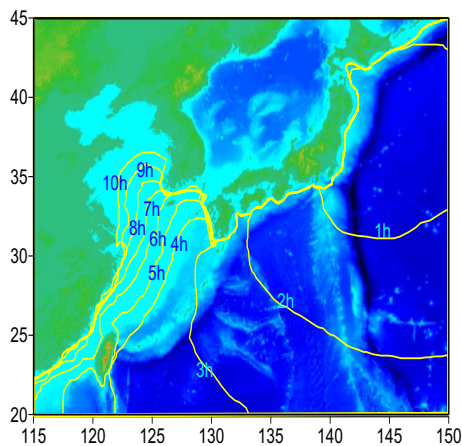


An Introduction to Hydrodynamics Studies at SJTU

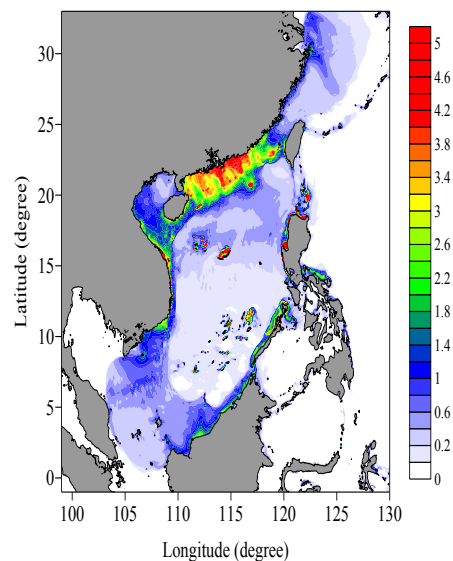
Hua Liu
MOE Key Laboratory of Hydrodynamics
Shanghai Jiao Tong University
Shanghai, China

Abstract

The research interests of hydrodynamics group at SJTU cover cavitation and cavitating flows, hydrodynamic flows with the free surface, nonlinear water wave dynamics and tsunamis. The major facilities for hydrodynamics studies, including the ship model towing tank, wave basin, wave flume and cavitation tunnel, and the projects we have been involved will be introduced briefly. Recent progress of investigation in multi-phase SPH modelling of water entry problems, unsteady behavior of cavitating flows, runup of multi-solitary waves on a plane beach, scenarios of local tsunami in South China Sea will be presented and discussed.



Arrival time of tsunami in East China Sea



Maximum velocity of tsunami in South China Sea