

Modeling of Water Waves: Theory and Simulations

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Date : 3 August 2009 (Monday)
Time : 3.30 pm – 4.30 pm
Venue: SPMS-Executive Classroom 1, MAS-03-06
School of Physical and Mathematical Sciences

In this talk, I will start with an introduction on various water wave models and an overview of their application ranges and their limitations. Recent theoretical results on three-dimensional wave patterns will then be presented. Numerical experiments on three-dimensional waves, including experiments related to wave patterns, tsunami simulations and solitary wave interactions, will also be demonstrated.

Speaker Biography

Min Chen received her B.S. in 1982 and her Master's degree in Mathematics in 1985 from Beijing University. She received her Master's degree in Mechanical and Aerospace Engineering from Princeton University and then received her Ph.D. in Mathematics from Indiana University. Her advisor was Roger Temam. She is currently a professor in the Mathematics Department of Purdue University, USA. Min Chen is an applied mathematician interested in problems coming from attempts to understand, predict and control real world phenomena. Her research work ranges from innovative general purpose numerical methods to the development of schemes and computer code. She is also involved in the derivation and analysis of mathematical models for fluid flows. Min Chen is an editorial board member of *Nonlinear Analysis: Theory, Method & Application* and *European Journal of Pure and Applied Mathematics*.

Host: Prof. Wang Li-Lian, Division of Mathematical Sciences, School of Physical and Mathematical Sciences

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