Workshop on qualitative and numerical aspects of water waves and other interface problems
May 17 - 19, 2011
organized by A. Constantin, J. Escher, D. Lannes, W. Strauss

- Tuesday, May 17
  09:00 – 10:00: J.-C. Saut (Paris Orsay)
  Remarks on the Cauchy problem for Boussinesq systems
  10:00 – 10:30: Coffee
  10:30 – 11:30: M. Groves (Saarbrücken)
  Existence and stability of fully localised three-dimensional gravity-capillary solitary water waves
  11:30 – 12:30: V. Hur (U. of Illinois)
  Regularity vs. Blowup for surface water waves
  12:30 – 14:00: Lunch Break
  14:00 – 15:00: C. Sulem (Toronto)
  Water waves over a rough bottom in the shallow water regime
  15:00 – 16:00: V. Duchêne (ENS Paris)
  A nonlinear approach to the dead-water phenomenon
  16:00 – 16:30: Coffee
  16:30 – 17:30: N. Totz (Ann Arbor)
  A Rigorous Justification of the Modulation Approximation to the 2D Full Water Wave Problem

- Wednesday, May 18
  09:00 – 10:00: E. Wahlén (Lund)
  Existence and stability of solitary water waves with weak surface tension
  10:00 – 10:30: Coffee
  10:30 – 11:30: A. Matioc (Hannover)
  On stratified steady periodic water waves with linear density distribution and stagnation points
  11:30 – 12:30: B. Matioc (Hannover)
  Existence and regularity results for stratified water waves
  12:30 – 14:00: Lunch Break
  14:00 – 15:00: P. Germain (Courant Institute)
  Global existence for water waves
  15:00 – 16:00 D. Lannes (ENS Paris)
  A stability criterion for two-fluid interfaces
  16:00 – 16:30: Coffee
Thursday, May 19

09:00 – 10:00: T. Kano (Kyoto)
Water waves KdV hierarchy III

10:00 – 10:30: Coffee

10:30 – 11:30: T. Iguchi (Keio)
A mathematical analysis of tsunami generation in shallow water due to seabed deformation

11:30 – 12:30: H. Segur (Colorado)
Surface waves on deep water

12:30 – 14:00: Lunch Break

14:00 – 15:00: P. Guyenne (Delaware)
A Hamiltonian approach to nonlinear modulation of water waves

15:00 – 16:00 A. Nachbin (IMPA)
Reduced water wave models with highly variable topography

16:00 – 16:30: Coffee

16:30 – 17:30: J. Escher (Hannover)
Regularity of rotational waves

All lectures take place in the ESI Boltzmann Lecture Hall