

Workshop on
“Nonlinear Water Waves - an Interdisciplinary Interface”

November 27 – December 7, 2017

organized by

David Henry (U College Cork), Konstantinos Kalimeris (RICAM, Linz), Emilian Părău (U of East Anglia), Jean-Marc Vanden-Broeck (U College London), Erik Wahlén (Lund U)

Week 1

November 27 – December 1, 2017

• **Monday, November 27, 2017**

09:00 – 09:30 **Registration**

09:30 – 10:30 **Jean-Marc Vanden-Broeck**

Introductory talk:

Numerical and analytical investigations of nonlinear water waves and related problems

10:30 – 11:00 *Coffee / Tea Break*

11:00 – 12:00 **Paul Milewski**

Understanding Complex Dynamics of Faraday Droplets

12:00 – 14:00 *Lunch Break*

14:00 – 14:45 **Emilian I. Părău**

Nonlinear hydroelastic waves

14:45 – 15:30 **Benjamin Akers**

Overtaken Traveling Interfacial Waves

15:30 – 16:00 *Break*

16:00 – 16:45 **Philippe Guyenne**

Numerical study of solitary wave attenuation in a fragmented ice sheet

• **Tuesday, November 28, 2017**

09:30 – 10:30 **Andre Nachbin**

Surface waves over highly irregular topographies

10:30 – 11:00 *Coffee / Tea Break*

11:00 – 12:00 **Bernard Deconinck**

The stability of solutions of integrable equations

12:00 – 14:00 *Lunch Break*

14:00 – 14:45 **Karima Khusnutdinova**

On KP and Ostrovsky-type models

14:45 – 15:30 **Olga Trichtchenko**
Stability of periodic travelling wave solutions to Korteweg-de Vries and related equations

15:30 – 16:00 *Break*

16:00 – 16:45 **Dane Grundy**
Interfacial solitary waves with surface stress

• **Wednesday, November 29, 2017**

09:30 – 10:30 **Onno Bokhove**
On variational water wave modelling

10:30 – 11:00 *Coffee / Tea Break*

11:00 – 11:45 **Tao Gao**
Numerical investigation on the bifurcation structures of nonlinear water waves

11:45 – 12:30 **Alex Doak**
Travelling wave solutions on a ferrofluid jet

12:30 – 14:00 *Lunch Break and Free Afternoon*

• **Thursday, November 30, 2017**

09:30 – 10:30 **Victor Shrira**
Waves on jet currents: a new paradigm and novel mechanisms of freak wave formation

10:30 – 11:00 *Coffee / Tea Break*

11:00 – 12:00 **Wooyoung Choi**
Spectral formulation for nonlinear water waves and its generalization to two-layer flows

12:00 – 14:00 *Lunch Break*

14:00 – 14:45 **Katie Oliveras**
Nonlinear Traveling Internal Waves in Depth-Varying Currents

14:45 – 15:30 **Magda Carr**
Investigation of Mode-2 Internal-Solitary-Like Waves

15:30 – 16:00 *Break*

16:00 – 16:45 **Ricardo Barros**
Large amplitude internal waves in three-layer flows

• **Friday, December 1, 2017**

09:30 – 10:30 **Richard Kollár**
How Extensions of Eigenvalue Problems Can Help To Study Stability Problems and Decay Rates of Internal Waves in Stratified Fluids

10:30 – 11:00 *Coffee / Tea Break*

11:00 – 11:45 **Dominic Amann**
Numerical approximation of an asymptotic expansion for steady periodic water waves

11:45 – 12:30 **Berry Bakker**
Spatial Dynamics in Nonlocal Equations

All talks take place at ESI, Boltzmann Lecture Hall!