

IMA Conference on Nonlinearity and Coherent Structures

Wednesday 6 July – Friday 8 July 2011

University of Reading

PROGRAMME

WEDNESDAY 6th JULY

	Welcome and Opening Nike Theatre
09:30 – 10:30	PLENARY TALK Freak Waves and Probabilistic Forecasting Peter A.E.M. Janssen <i>ECMWF, Reading, UK</i>
10:30 - 11:00	Interactions of Domain Walls in Bistable Systems near and far from Criticality Andrzej Janutka <i>Wroclaw University of Technology</i>
11:00 – 11:30	Tea/coffee break
11:30 - 12:00	Traveling Waves for the Whitham Equation Henrik Kalisch <i>University of Bergen</i>
12:00 - 12:30	Effects of Shear Flow on KDV Balance, with Applications to Tsunami Raphael Stuhlmeier <i>University of Vienna</i>
12:30 - 13:00	Nonholonomic Deformation of the DNLS Equation for Controlling Optical Soliton in Doped Fiber Medium Anjan Kundu Saha <i>Institute of Nuclear Physics</i>
13:00 - 14:00	LUNCH
14:00 - 15:00	PLENARY TALK Particle trajectories beneath irrotational traveling water waves Adrian Constantin <i>University of Vienna</i>
15:00 - 15:30	Coherent Structures in Transitional Plane Couette Flow Paul Manneville <i>École polytechnique</i>
15:30 - 16:00	Viscous Dispersion Effects on Bound-state Formation and Self-organization in Falling Liquid Films Marc Pradas <i>Imperial College London</i>
16:00 - 16:30	Tea/coffee break
16:30 - 16:45	Different asymptotic regimes for coupled Boussinesq equations Kieron Moore <i>Loughborough University</i>
16:45 - 17:00	Electrostatically-induced complex dynamics in viscous liquid film flows down the exterior of a cylinder Alexander Wray <i>Imperial College London</i>
17:00 - 17:15	Nonlinear Phenomena In Two-Fluid Shear Flows In The Presence Of Surfactants Anna Kalogirou <i>Imperial College London</i>
17:15 - 17:30	Analysis and computations for coupled non-local Kuramoto-Sivashinsky equations arising in multilayer falling film problems Evangelos Papaefthymiou <i>Imperial College London</i>
19:00	Conference Dinner - Wantage Hall

THURSDAY 7th JULY

09:00 - 10:00	PLENARY TALK Mathematics of Fibre Lasers Sergey Turitsyn <i>Photonics Research Group, Aston University</i>
10:00 - 10:30	On weakly nonlinear wave scattering and initial value problems for Boussinesq-type equations Karima Khusnutdinova <i>Loughborough University</i>
10:30 - 11:00	Localised Pattern Formation Jonathan H.P. Dawes <i>University of Bath</i>
11:00 – 11:30	Tea/coffee break
11:30 - 12:00	Optical vortex knots and links in self-trapped laser beams Anton Desyatnikov <i>The Australian National University</i>
12:00 - 12:30	Stability and freezing of waves in nonlinear hyperbolic-parabolic systems Jens Rottmann-Matthes <i>Bielefeld University</i>
12:30 - 13:00	Analysis of Multichannel Soliton Collisions in Strongly Dispersion Managed WDM Transmission Systems Francisco J. Diaz-Otero <i>University of Vigo</i>
13:00 - 14:00	LUNCH
14:00 - 15:00	KEYNOTE LECTURE Nonlinear waves: from oceans to 'optical graphene' Mark Ablowitz <i>University of Colorado at Boulder</i>
15:00 - 15:30	On stationary motions of Prandtl-Eyring Fluids in 2D Dominic Breit <i>Universität des Saarlandes, Germany</i>
15:30 - 16:00	Efficient Parallel Schemes for the Numerical Solution of the Nonlinear Schrödinger Equation Julio Sánchez-Curto <i>University of Valladolid, Spain</i>
16.00 - 16.30	Tea/coffee break
16:30 - 17:00	Skyrmions, Rational Maps and Scaling Identities Efsthios Charalampidis <i>Aristotle University of Thessaloniki, Greece</i>
17:00 - 17:15	Exact Solutions to the Focusing Discrete Nonlinear Schrödinger Equation Francesco Demontis <i>University of Cagliari</i>
17:15 - 17:30	Noise induced state transitions, intermittency and universality in the noisy Kuramoto-Sivashinsky equation Dmitri Tseluiko <i>Loughborough University</i>
17:30 - 17:45	Exact Solutions to the Sine-Gordon Equation Francesco Demontis <i>University of Cagliari</i>
18:45	RECEPTION - Park House

FRIDAY 8th JULY

09:00 - 10:00	PLENARY TALK The effect of rotation on solitary waves Roger Grimshaw <i>Loughborough University</i>
10:00 - 10:30	Stochastic nonlinear Schrödinger equations in fiber optics Anne de Bouard <i>CNRS and Ecole Polytechnique</i>
10:30 - 11:00	Multiple Vortices Induced by a Tridimensional Critical Layer within a Tornado Philippe Caillol <i>Universidad de Concepción, Chile</i>
11:00 - 11:30	Tea/coffee break
11:30 - 12:00	Gravity-capillary solitary waves in two-layer fluids Emilian I. Părău <i>University of East Anglia</i>
12:00 - 12:30	Traveling Waves Phenomena to Reaction-Diffusion Systems with Two Higher-order Nonlinear Diffusion Terms Zhaosheng Feng <i>University of Texas-Pan American</i>
12:30 - 13:00	Quantized representation of some nonlinear integrable evolution equations on the soliton sector Yair Zarmi <i>Ben-Gurion University of the Negev, Israel</i>
13:00 - 14:00	LUNCH
14:00 - 15:00	PLENARY TALK Coherent Structures in Water Waves: Physics, Data Analysis and Hyperfast Numerical Methods Alfred R. Osborne <i>Universita' di Torino, Italy</i>
15:00 - 15:30	The regularized Schrödinger kernel and Heisenberg inequalities related to the Kontorovich-Lebedev transform Nelson Vieira <i>University of Porto, Portugal</i>
15:30 - 16:00	Variational approximations to homoclinic snakings Hadi Susanto <i>University of Nottingham</i>
16:00 – 16:30	Tea/coffee break
16:30 - 17:00	Solitary waves in electrified fluids under the influence of a moving pressure distribution Mat Hunt <i>University College London</i>
17:00 – 17:30	Coherent Structures in Bose-Einstein Condensates Peter Mason <i>Institut Jean le Rond d'Alembert, France</i>
17:30	Conference close.