International Workshop on Nonlinear Waves

The Institute of Mathematical Sciences
The Chinese University of Hong Kong

Program Schedule

June 1, 2004 (Tuesday)

Time	Speaker	Talk Title
08:45 – 09:10	*~~~~~ Registration ~~~~~*	
Chair	***Zhouping Xin***	
09:10 – 09:30	~~~~~ Opening Ceremony ~~~~~~ Officiated by **Professor Leo Woon-Ming Lau** (Dean, Faculty of Science)	
09:30 – 10:00	Russel Caflisch (UCLA)	*A numerical/analytic approach to Euler singularities*
10:00 – 10:30	Thomas Y. Hou (Caltech)	*Geometric Properties and Non-blowup of 3-D Incompressible Euler Flow*
10:30 – 10:45	*~~~~~ Tea Break ~~~~~*	
10:45 – 11:15	Stephen Childress (New York University)	*Flapping flight at intermediate Reynolds numbers*
11:15 – 11:45	Jalal Shatah (New York University)	*Schrodinger Maps*
11:45 – 12:15	Jean-Michel Roquejoffre (Universite Paul Sabatier)	*Existence and Stability of Conical Waves in Reaction-Diffusion Equations*
12:15 – 14:00	*~~~~~ Lunch Break ~~~~~*	
Chair	***Ping Sheng***	
14:00 – 14:30	Mike Shelley (New York University)	*Locomotion by Destabilizing Symmetries*
14:30 – 15:00	Jack Xin (Univ. of Texas at Austin)	*Mathematical Modeling of the Ear and Applications to Sound Signal Processing*
15:00 – 15:30	Qiang Zhang (City U of HK)	*A Nonlinear Theory for Shock-Driven Interfacial Instability*
15:30 – 16:00	*~~~~~ Tea Break ~~~~~*	
16:00 – 16:30	Shi Jin (Univ. of Wisconsin-Madison)	*Computations of Multivalued Solutions of Nonlinear PDEs*
16:30 – 17:00	Zhaoqing Zhang (HKUST)	*Impact of weak localization in wave dynamics*

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June 2, 2004 (Wednesday)

Time	Speaker	Talk Title
Chair	*Shiu-Yuen Cheng*	
09:30 – 10:00	Ping Sheng (HKUST)	*Full Waveform Inversion with Optimal Basis Functions*
10:00 – 10:30	Ken Golden (University of Utah)	*Fluid and Thermal Transport through Sea Ice*
10:30 – 10:45	*~~~~~ Group Photo ~~~~~*	
10:45 – 11:00	*~~~~~ Tea Break ~~~~~*	
11:00 – 11:30	Daqian Li (Fudan University)	*Exact boundary controllability of unsteady flows in a tree-like network of open canals*
11:30 – 12:00	Gadi Fibich (Tel Aviv University)	*Self-focusing and multiple filamentation of laser beams*
12:00 – 12:30	Mikhail Kovalyov (University of Alberta)	*On a class of solutions of integrable systems*
12:30 – 14:00	*~~~~~ Lunch Break ~~~~~*	
Chair	*Russel Caflisch*	
14:00 – 14:30	Stuart S. Antman (University of Maryland)	*Geometry and the Quasilinear PDEs of Solid Mechanics*
14:30 – 15:00	Yann Brenier (Univ. de Nice Sophia-Antipolis)	*Waves and concentrations in the Born-Infeld Maxwell equations*
15:00 – 15:30	Knut Solna (UC at Irvine)	*Propagation and time reversal of waves in rough media*
15:30 – 16:00	*~~~~~ Tea Break ~~~~~*	
16:00 – 16:30	Li-Tien Cheng (UC at San Diego)	*A Numerical Framework for the Construction of Visibility Information*
16:30 – 17:00	Oliver Dorn (Univ. Carlos III de Madrid)	*A Level Set Method for Tomography*

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June 3, 2004 (Thursday)

Time	Speaker	Talk Title
Chair	**Jalal Shatah**	
09:30 – 10:00	Claude Bardos (Université Paris 6)	*Reversible limits of systems of N classical or quantum particles with mean field scaling*
10:00 – 10:30	Graeme Milton (University of Utah)	*The exact photonic band structure for a class of periodic media: a spectral problem*
10:30 – 10:45	*~~~~~ Tea Break ~~~~~*	
10:45 – 11:15	Walter Strauss (Brown University)	*Periodic Water Waves with Vorticity*
11:15 – 11:45	Lenya Ryzhik (University of Chicago)	*Travelling Fronts in a Boussinesq System*
11:45 – 12:15	Andre Nachbin (IMPA)	*Regularization through stochastic forcing and nonlinear time-reversal*
12:15 – 13:45	*~~~~~ Lunch Break ~~~~~*	
13:45 – 18:45	***Half Day Hong Kong Tour***	
18:45	***Banquet at Star Seafood Floating Restaurant, Shatin***	

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Program Schedule

June 4, 2004 (Friday)

Time	Speaker	Talk Title
Chair	*Yann Brenier*	
09:30 – 10:00	Weinan E (Princeton University)	*Mathematical Models of Solids*
10:00 – 10:30	Peter Markowich (Universität Wien)	*Highly Oscillatory PDEs*
10:30 – 10:45	~~~~~~~~ Tea Break ~~~~~~~~	
10:45 – 11:15	Gang Bao (Michigan State Univ.)	*Inverse Medium Problems for Maxwell's Equations*
11:15 – 11:45	Basil N.-Nicolaenko (Arizona State Univ.)	*Long Time Regularity of Solutions to Euler Equations for a class of Three-Dimensional Initial Data in Axisymmetric Domains*
11:45 – 12:15	Jingyi Zhu (University of Utah)	*An Extended Diffusion Model for Default Process*
12:15 – 14:00	~~~~~~~~ Lunch Break ~~~~~~~~	
Chair	*Xiao-Ping Wang*	
14:00 – 14:30	Jian-Guo Liu (Univ. of Maryland)	*Accurate, Stable and Efficient Navier-Stokes Solvers Based on Explicit Treatment of the Pressure Term*
14:30 – 15:00	Weizhu Bao (National Univ. of Singapore)	*Numerical Simulation for Bose-Einstein Condensation*
15:00 – 15:30	~~~~~~~~ Tea Break ~~~~~~~~	
15:30 – 16:00	Benjamin S. White (Exxon Mobil)	*Asymptotic Theory of Electroseismic Prospecting*