

International Workshop on Integrable Systems — Mathematical Analysis and Scientific Computing

October 17 - 21, 2015

Center for Advanced Study in Theoretical Sciences (CASTS), NTU, Taiwan

Tutorial Course			Workshop			
Time	Oct. 17 (Sat.)	Oct. 18 (Sun.)	Time	Oct. 19 (Mon.)	Oct. 20 (Tue.)	Oct. 21 (Wed.)
			08:30-09:00	Registration		
			09:00-09:10	Open Session		
Chair	B. Feng	W. H. Sheu	Chair	J. H. Lee	D. C. Wu	C. T. Chan
09:30-09:50	Registration		09:10-10:00	M. Ablowitz Multidimensional Water Waves: Dispersive Shocks and Rogue Waves	P. Miller Semiclassical Initial-Boundary Value Problems for the Defocusing Nonlinear Schrödinger Equation	A. Degasperis Rational solutions of integrable nonlinear wave models
09:50-10:00	Open Session	9:10-10:00 J. Yang General rogue waves in the focusing and defocusing Ablowitz-Ladik equations	10:10-11:00	Y. Ohta Coupled soliton equations derived from BKP hierarchy by reduction	C. H. Chang Long-time asymptotics of Camassa-Holm equations	J. Yang Nonlinear wave dynamics in PT-symmetric systems
10:00-10:50	A. Degasperis Multiscale perturbation of nonlinear partial differential equations and integrability	M. Ablowitz Inverse Scattering Transform (IST) I	11:00-11:20	Coffee Break		
11:00-11:50	Y. Ohta Special solutions of integrable equations and reduction technique	M. Ablowitz Inverse Scattering Transform (IST) II	11:20-12:10	D. C. Wu The Cauchy problem of the Pavlov equation	B. Feng A focusing and defocusing complex short pulse equation	Z. Zhu A nonintegrable discrete nonlinear Schrodinger equation with the nonlinear hopping
12:00-14:00	Lunch		12:10-13:20	Lunch		
Chair	B. Feng	W. H. Sheu	Chair	J. M. Yuan	City Tour	J. H. Chang
14:00-14:50	C. Klein Numerical approaches for integrable equations in higher dimensions	P. Miller Singular Limits for Integrable Equations	13:20-14:10	J. He New Hierarchies of Derivative nonlinear Schrodinger Type Equations		C. Klein Numerical study of integrable equations in higher dimensions
15:00-15:50	B. Feng Construction of self-adaptive moving mesh methods based on hodograph transformation	M. Ablowitz Inverse Scattering Transform (IST) III	14:20-15:10	Y. Xu High order numerical methods for the nonlinear wave equations		
15:50-16:10	Coffee Break		15:10-15:30	Coffee Break		
16:10-17:00	D. Shepelsky Initial-boundary value problems for integrable nonlinear equations: a Riemann-Hilbert approach	Y. Xu Local discontinuous Galerkin method for the nonlinear wave equations	15:30-16:20	K. Maruno Novel numerical methods for some integrable PDEs		
17:00-17:50	J. He The construction of the higher-order rogue wave solutions of the nonlinear Schrodinger equation		16:30-17:20	D. Shepelsky The Degasperis-Procesi equation and its short wave limit by a Riemann-Hilbert approach		
			18:30	Workshop Banquet		

Workshop Organizers :

Tony W. H. Sheu (CASTS, National Taiwan University)

Bao Feng Feng (University of Texas-Pan American)

Jyh-Hao Lee (Academia Sinica)

Workshop Website: <http://www.tims.ntu.edu.tw/iwismasc/index.php#>