





## International Conference on nonlinear Partial Differential Equations: Theories, Numerics and **Applications (Day 1)**

Date: 21<sup>st</sup> May 2016 (Saturday) Venue: AC3-8210 (City University of Hong Kong)

9:00 am – 9:15 am	REGISTRATION
9:15 am – 9:25 am	WELCOME and OPENING
9:25 am – 10:10 am	Prof. Franco Brezzi VEM for Magnetostatic Problems
10:10 am – 10:20 am	Break
10:20 am – 11:05 am	Prof. José A. Carrillo  Nonlinear Diffusion-dominated Keller-Segal Equations: Stationary States & Long Time Asymptotics
11:05 am – 11:30 am	COFFEE BREAK and DISCUSSION
11:30 am – 12:15 pm	Prof. Wang Shu Some Topics on Nonlinear Fluid-Dynamical Equations
12:30 pm – 2:30 pm	LUNCH BREAK
2:30 pm – 3:15 pm	Prof. Jorge P. Zubelli Inverse Problems for Parabolic Partial Differential Equations: An Application to Dupire's Model
3:15 pm – 3:30 pm	Break
3:30 pm – 4:15 pm	<b>Prof. Pierangelo Marcati</b> Nonlinear Maxwell-Schrödinger System and Quantum Magneto-Hydrodynamics in 3-D
4:15 pm – 4:45 pm	COFFEE BREAK and DISCUSSION
4:45 pm – 5:30 pm	Prof. Weizhu Bao  Numerical Methods and Comparison for the Dirac Equation in the Nonrelativistic  Limit Regime







## International Conference on nonlinear Partial Differential Equations: Theories, Numerics and **Applications (Day 2)**

Date: 22<sup>nd</sup> May 2016 (Sunday) Venue: Y304 (The Hong Kong Polytechnic University)

10:30 am – 10:45 am	REGISTRATION
10:45 am – 11:30 am	Prof. Anton Arnold Entropy Method for Hypocoercive BGK and Fokker-Planck Equations
11:30 am – 11:40 am	Break
11:40 am – 12:20 pm	Prof. Shi Jin Semiclassical Computational Methods for Quantum Dynamics with Band-crossing
12:30 pm – 2:30 pm	LUNCH BREAK
2:30 pm – 3:15 pm	Prof. Donatella Marini Serendipity Nodal VEM spaces
3:15 pm – 3:30 pm	Break
3:30 pm – 4:15 pm	Prof. Massimo Fornasier Learning and Sparse Control of Multiagent Systems
4:15 pm – 4:45 pm	COFFEE BREAK and DISCUSSION
4:45 pm – 5:30 pm	Professor Zhongyi Huang Bloch Decomposition Based Method for Quantum Dynamics in Periodic Media







## International Conference on nonlinear Partial Differential Equations: Theories, Numerics and **Applications (Day 3)**

Date: 23<sup>rd</sup> May 2016 (Monday) Venue: Y304 (The Hong Kong Polytechnic University)

10:30 am – 10:45 am	REGISTRATION
10:45 am – 11:30 am	Prof. Xiaoping Wang An Efficient Threshold Dynamics Method for Wetting on Rough Surfaces
11:30 am – 11:40 am	Break
11:40 am – 12:20 pm	Prof. Zhouping Xin On the Existence of Global Finite Energy Solutions to the Multi-Dimensional Compressible Navier-Stokes System with Degenerate Viscosities
12:30 pm – 2:30 pm	LUNCH BREAK
2:30 pm – 3:15 pm	Prof. Christian Schmeiser Kinetic Models of Chemotaxis
3:15 pm – 3:30 pm	Break
3:30 pm – 4:15 pm	Prof. Paola Pietra Quantum-Drift-Diffusion Model in a Hybrid Strategy for the Simulation of Electron Transport in Carbon Nanotubes
4:15 pm – 4:45 pm	COFFEE BREAK and DISCUSSION
4:45 pm – 5:30 pm	Prof. Kazuo Aoki Nonlinear Acoustic Wave Propagation in a Rarefied Gas: Numerical Analysis Based on Kinetic and Fluid Equations