The Institute of Mathematical Sciences
The Chinese University of Hong Kong

IMS Workshop on PDEs (I)
December 29-31, 2016 (Thursday – Saturday)

Venue: 501a, 5/F, Academic Building No. 1, CUHK

December 29 (Thursday)

08:45 – 08:55   *REGISTRATION*

08:55 – 09:00   *Opening Remarks by **Professor Zhouping XIN***

Session Chair: Professor Zhouping Xin

09:00 – 09:50   **Prof. Boling GUO** (Institute of Applied Physics and Computational Mathematics)
The inverse scattering method and its applications

09:50 – 10:20   *TEA*

10:20 – 11:10   **Prof. Xianpeng HU** (City University of Hong Kong)
Hausdorff dimension of concentration for isentropic compressible Navier-Stokes equations

11:10 – 12:00   **Prof. Zhen LEI** (Fudan University)
Vanishing Viscosity Limit for Viscoelast Fluids

12:00 – 14:30   *LUNCH*

Session Chair: Professor Xianpeng HU

14:30 – 15:20   **Prof. Tianling JIN** (The Hong Kong University of Science & Technology)
The Nirenberg problem and its generalizations: A unified approach

15:20 – 16:10   **Prof. Dong LI** (The Hong Kong University of Science & Technology)
On Kato-Ponce and related issues

16:10 – 16:40   *TEA*

16:40 – 17:30   **Prof. Xuefeng WANG** (Southern University of Science & Technology)
Using effective boundary conditions to model fast diffusion on a road in a large field

December 30 (Friday)

09:15 – 10:05   **Prof. Yong YU** (The Chinese University of Hong Kong)
Global solutions to a simplified Ericksen-Leslie system

10:05 – 10:35   *TEA*

10:35 – 11:25   **Prof. Jinkai LI** (The Chinese University of Hong Kong)
Global well-posedness of the primitive equations: near H^1 initial data

11:25 – 12:15   **Prof. Hai ZHANG** (The Hong Kong University of Science & Technology)
Wave scattering by sub-wavelength resonators and their applications

12:15 – 12:30   *GROUP PHOTO*

12:30 – 14:30   *LUNCH*

14:30 – 15:20   **Prof. Zhengan YAO** (Zhongshan University)
Incompressible limit for the compressible flow of liquid crystals in L^p type critical Besov spaces

15:20 – 16:10   **Prof. Jing LI** (Chinese Academy of Sciences)
Global Existence of Weak Solutions to the Barotropic Compressible Navier-Stokes Flows with Degenerate Viscosities

16:10 – 17:00   **Prof. Tak Kwong WONG** (The University of Hong Kong)
Axisymmetric Flow of Ideal Fluid Moving in a Narrow Domain

18:30   *WORKSHOP BANQUET*

December 31 (Saturday)

Session Chair: Professor Yong YU

09:00 – 09:50   **Prof. Feimin HUANG** (Chinese Academy of Sciences)
Characteristic discontinuities in nozzles

09:50 – 10:40   **Prof. Quansen JIU** (Capital Normal University)
Global well-posedness to the MHD equations with partial viscosity

10:40 – 11:10   *TEA*

11:10 – 12:00   **Prof. Shijin DING** (South China Normal University)
Stability analysis for the incompressible Navier-Stokes equations with Navier boundary conditions

12:00 – 12:50   **Prof. Zhian WANG** (The Hong Kong Polytechnic University)
Stability of Boundary Layers Arising from Chemotaxis Models

12:50 – 15:00   *LUNCH*