

The Institute of Mathematical Sciences
Department of Mathematics
The Chinese University of Hong Kong

**International Workshop on PDEs
May 6-9, 2019 (Monday-Thursday)**

Venue: G03, G/F, Academic Building No. 1, CUHK

May 6 (Monday)

- 08:45 – 09:05 *REGISTRATION*
09:05 – 09:15 *Opening Remarks by Professor Jun ZOU*
- Session Chair: *Professor Zhouping XIN*
- 09:15 – 10:15 **Professor Tong YANG** (City University of Hong Kong)
[Plenary talk] *Some studies on the Boltzmann equation without angular cutoff*
- 10:15 – 10:30 *TEA BREAK [5/F]*
- 10:30 – 11:15 **Professor David Christophe Luc GERARD-VARET** (Université Paris Diderot)
Analysis of the effective viscosity of dilute suspensions
- 11:15 – 12:00 **Professor Yasunori MAEKAWA** (Kyoto University)
On stability of physically reasonable solutions to the two-dimensional Navier-Stokes equations
- 12:00 – 14:00 *LUNCH*
- Session Chair: *Professor Tong YANG*
- 14:00 – 14:45 **Professor Huijiang ZHAO** (Wuhan University)
On the Vlasov-Maxwell-Boltzmann systems
- 14:45 – 15:30 **Professor Dong LI** (The Hong Kong University of Science and Technology)
Sharp Gevrey regularity for supercritical surface quasi-geostrophic equations
- 15:30 – 15:50 *TEA BREAK [5/F]*
- 15:50 – 16:35 **Professor Dongho CHAE** (Chung-Ang University)
Liouville type theorems in the stationary Navier-Stokes and related equations
- 16:30 – 18:00 *FREE DISCUSSIONS*

May 7 (Tuesday)

Session Chair: Professor Renjun DUAN

- 09:00 – 09:45 **Professor Yoshiyuki KAGEI** (Tokyo Institute of Technology)
Stability of spatio-temporal periodic states of the compressible Navier-Stokes equations
- 09:45 – 10:15 *GROUP PHOTO [ROOF] & TEA BREAK [5/F]*
- 10:15 – 11:00 **Professor Zhen LEI** (Fudan University)
Rigidity of the Navier-Stokes equations
- 11:00 – 11:45 **Professor Jinhae PARK** (Chungnam National University)
Some mathematical properties of Ferroelectric Liquid Crystals
- 11:45 – 14:00 *LUNCH*

Session Chair: Professor Yoshiyuki KAGEI

- 14:00 – 14:45 **Professor David Jean Michel LANNES** (Université de Bordeaux)
The shoreline problem for the Green-Naghdi equations
- 14:45 – 15:30 **Dr. Giacomo CANEVARI** (University of Verona)
Design of effective bulk potential for nematic liquid crystals via homogenisation
- 15:30 – 15:50 *TEA BREAK [5/F]*
- 15:50 – 16:35 **Professor Pin YU** (Tsinghua University)
Global behaviors for Maxwell-Klein-Gordon equations with arbitrary large data
- 18:00 – 20:00 *BANQUET at Chung Chi College Staff Restaurant*

May 8 (Wednesday)

Session Chair: Professor Yong YU

09:00 – 10:00 **Professor Chun LIU** (Illinois Institute of Technology)
[Plenary Talk] *Thermal Effects in General Diffusion: An Energetic Variational Approach*

10:00 – 10:15 *TEA BREAK [5/F]*

10:15 – 11:00 **Professor Changyou WANG** (Purdue University)
Suitable weak solutions of Beris-Edwards Q-tensor system for nematic liquid crystal flow

11:00 – 11:45 **Professor Jinkai LI** (South China Normal University)
Entropy-bounded solutions to compressible Navier-Stokes equations with far field vacuum

11:45 – 14:00 *LUNCH*

Session Chair: Professor Chun LIU

14:00 – 14:45 **Professor Zhi-Qiang WANG** (Utah State University)
Convergence in power law nonlinear scalar field equations

14:45 – 15:30 **Professor Ning JIANG** (Wuhan University)
On the Ericksen-Leslie's hyperbolic model for liquid crystals

15:30 – 15:50 *TEA BREAK [5/F]*

15:50 – 16:35 **Professor Shih-Hsien YU** (National University of Singapore)
The pointwise structure of the Green's function of a heat equation with a BV coefficient

May 9 (Thursday)

09:00 – 12:00 *FREE DISCUSSIONS*

~~~ End of Workshop ~~~