

**10/31 (Thursday)**

**Venue: IB Lecture Hall**

| Time                         | Speaker  | Title (or activities)   |
|------------------------------|--|---|
| 8:10am                       | Shuttle from Mercure Hotel to DKU campus               |   |
| 8:30-8:45am                  |  | Registration & Reception  |
| 8:45-9:00am                  |  | Opening Ceremony  |
| Morning Chair: Jian-Guo Liu  |  |   |
| 9:00-9:45am                  | Jiaying Hong<br>(Fudan University)                     | Isometric embedding in $\mathbb{R}^3$ of Alexandrov-Nirenberg surfaces  |
| 9:50-10:35am                 | Shi Jin<br>(Shanghai Jiao Tong University)             | Random Batch Methods for Interacting Particle Systems and Consensus Based Global Optimization in High Dimensional Machine Learning Problems |
| 10:35-11:15am                |  | Coffee Break and Group Photo  |
| 11:15am-12:00pm              | Pierre Michel Tarres<br>(New York University Shanghai) | Reinforced random walks and statistical physics   |
| 12:00-2:00pm                 |  | Lunch<br><i>Venue: Ballroom B</i>   |
| Afternoon Chair: Xiaoqian Xu |  |   |
| 2:00-2:45pm                  | Huijiang Zhao<br>(Wuhan University)                    | On the Vlasov-Maxwell-Boltzmann system near Maxwellians   |
| 2:50-3:35pm                  | Tudor Stefan Ratiu<br>(Shanghai Jiao Tong University)  | The Teichmüller space as a reduced symplectic space   |
| 4:00-4:45pm                  | Ying Zhang<br>(Soochow University)                     | Finite topologies and $p$ -group actions  |
| 4:50-5:35pm                  | Peter Pickl<br>(Duke Kunshan University)               | Derivation of the Vlasov equation   |
| 6:00-8:00pm                  |  | Banquet<br><i>Venue: Yushan Scenic Spot Tianyue Fishing Village</i><br><i>玉山胜境天悦渔庄</i>  |
| 8:10pm                       | Shuttle from Tianyue Fishing Village to Mercure Hotel  |   |

**11/01 (Friday)**

**Venue: IB 1046**

| Time                          | Speaker   | Title (or activities)  |
|-------------------------------|---|--|
| 8:30am                        | Shuttle from Mercure Hotel to DKU campus                      |  |
| Morning Chair: Peter Pickl    |   |  |
| 9:00-9:45am                   | Zhouping Xin<br>(Chinese University of Hong Kong)             | Subsonic and Sonic Jet Flows   |
| 9:50-10:35am                  | Ping Zhang<br>(Chinese Academy of Sciences)                   | Global solutions of 3-D anisotropic Navier-Stokes system with uni-directional derivative small |
| 10:35-11:00am                 |   | Coffee Break   |
| 11:00-11:45am                 | Dongho Chae<br>(Chung-Ang University)                         | On type I singularity for the Euler equations  |
| 11:45am-2:00pm                |   | Lunch  |
| Afternoon Chair: Zhennan Zhou |   |  |
| 2:00-2:45pm                   | Jean-Luc Thiffeault<br>(University of Wisconsin-Madison)      | PDE description of Brownian microswimmer interacting with walls                                |
| 2:50-3:35pm                   | Tiejun Li<br>(Peking University)                              | Some Recent Process on scRNA-seq Data Analysis   |
| 3:35-4:00pm                   |   | Coffee Break   |
| 4:00-4:45pm                   | Xuefeng Wang<br>(Chinese University of Hong Kong at Shenzhen) | Effective boundary conditions of diffusion equations on domains containing thin layers         |
| 4:50-5:35pm                   | Chunjing Xie<br>(Shanghai Jiao Tong University)               | Uniform structural stability of Hagen-Poiseuille flows in a pipe                               |
| 6:00pm                        | Shuttle No.1 from DKU to Mercure Hotel                        |  |
| 7:00pm                        | Shuttle No.2 from DKU to Mercure Hotel                        |  |

**11/02 (Saturday)**

**Venue: IB 1046**

| Time                               | Speaker  | Title (or activities)   |
|------------------------------------|--|---|
| 8:00am                             | Shuttle from Mercure Hotel to DKU campus                           |   |
| Morning Chair: Jean-Luc Thiffeault |  |   |
| 8:30-9:15am                        | Li Chen<br>(Universität Mannheim)                                  | Global existence, asymptotic behavior, and pattern formation driven by the parametrization of a nonlocal Fisher-KPP problem |
| 9:20-10:05am                       | Yang Xiang<br>(Hong Kong University of Science and Technology)     | Energy and Dynamics of Grain Boundaries Based on Underlying Microstructure  |
| 10:05-10:30am                      | Coffee Break   |   |
| 10:30-11:15am                      | Hongjie Dong<br>(Brown University)                                 | Mixed boundary value problem on nonsmooth domains   |
| 11:15am-12:00pm                    | Jiahong Wu<br>(Oklahoma State University)                          | Stability and partial dissipation   |
| 12:00-2:00pm                       | Lunch  |   |
| Afternoon Chair: Zhouping Xin      |  |   |
| 2:00-2:45pm                        | Xiao-Ping Wang<br>(Hong Kong University of Science and Technology) | An iterative thresholding method for topology optimization  |
| 2:50-3:35pm                        | Zhi Lin<br>(Zhejiang University)                                   | Uniform structural stability of Hagen-Poiseuille flows in a pipe<br>Passive Scalar Mixing Measures and Optimal Stirring     |
| 3:35-4:00pm                        | Coffee Break   |   |
| 4:00-4:45pm                        | Xiaoming Wang<br>(Southern University of Science and Technology)   | A second order in time energy stable variable step method for the Cahn-Hilliard equation                                    |
| 4:50-5:35pm                        | Hao Wang<br>(Sichuan University)                                   | Approximation of the Atomistic Model by Higher Order Continuum Model  |
| 6:00pm                             | Shuttle No.1 from DKU to Mercure Hotel                             |   |
| 7:00pm                             | Shuttle No.2 from DKU to Mercure Hotel                             |   |

**11/03 (Sunday)**

**Venue: IB 1046**

| Time                         | Speaker  | Title (or activities)   |
|------------------------------|--|---|
| 8:00am                       | Shuttle from Mercure Hotel to DKU campus             |   |
| Morning Chair: Lei Li        |  |   |
| 8:30-9:15am                  | Ya-Guang Wang<br>(Shanghai Jiao Tong University)     | Back flow of the Prandtl boundary layer                                     |
| 9:20-10:05am                 | Yi Zhu<br>(Tsinghua University)                      | Mathematical Aspects of Topologically Protected Wave Propagation            |
| 10:05-10:30am                | Coffee Break   |   |
| 10:30-11:15am                | Jiwei Zhang<br>(Wuhan University)                    | Nonuniform time-stepping approaches for reaction-subdiffusion problems      |
| 11:20am-12:05pm              | Yuning Liu<br>(New York University Shanghai)         | The sharp interface limits of some phase field models                       |
| 12:05-2:00pm                 | Lunch  |   |
| Afternoon Chair: Xiaoqian Xu |  |   |
| 2:00-2:45pm                  | Konstantinos Efstathiou<br>(Duke Kunshan University) | On the topology of integrable Hamiltonian fibrations                        |
| 2:50-3:35pm                  | Lei Li<br>(Shanghai Jiao Tong University)            | Complete monotonicity-preserving numerical methods for time fractional ODEs |
| 3:35-4:00pm                  | Coffee Break   |   |
| 4:00-4:45pm                  | Yingzhou Li<br>(Duke University)                     | Oscillatory Integral Operators and Interpolative Butterfly Factorization    |