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| Nov. 27 (Thu) | Registration, Dinner: 18:30-20:30, Venue TBA  |  |
| Nov. 28 (Fri) | Morning Chair: Xiaoqian Xu.<br>Venue: Duke Kunshan University, Room: Innovation Building 1046 |  |
| Time          | Speaker   | Title (or activities)  |
| 9:00-10:00    | Jian-Guo Liu (Duke University)  | Analysis of the adhesion model and the reconstruction problem in cosmology   |
| 10:00-10:20   |   | Coffee Break   |
| 10:20-11:20   | Quoc-Hung Nguyen (CAS)  | Boundary Regularity of the Surface Quasi-Geostrophic (SQG) Equation in Smooth Domains  |
| 11:20-12:20   | Zhendong Chen (Shanghai Jiao Tong University)   | Shock formation for the 2D rotating shallow water equations with large vorticity   |
| 12:20-14:00   |   | Lunch  |
| 14:00-17:30   |   | Free afternoon, Jinxi Ancient Town (Optional, free for entry, could choose to pay to take the boat or other attractions there) |
| 17:30-20:00   |   | Dinner: TBA  |

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| Nov. 29 (Sat) |   | Morning Chair: De Huang. Afternoon Chair: Yupei Huang.<br>Venue: Duke Kunshan University, Room: Innovation Building 1046 |  |
| Time          | Speaker                                   | Title (or activities)  |  |
| 9:00-10:00    | Stefano Bianchini (SISSA)                 | On the properties of traveling wave solutions for a reaction diffusion equation with control                             |  |
| 10:00-10:20   |   | Coffee Break   |  |
| 10:20-11:20   | Jiajun Tong (Peking University)           | The Immersed Boundary Problem in 2-D: the Navier-Stokes Case   |  |
| 11:30-12:00   | Jose Antonio Lucas Manchon (ICMAT)        | Strong ill-posedness and non-existence in Sobolev spaces for generalized-SQG   |  |
| 12:00-14:00   |   | Lunch  |  |
| 14:00-15:00   | Xiaoyutao Luo (CAS)                       | Long time inviscid damping near Couette  |  |
| 15:00-15:20   |   | Coffee Break   |  |
| 15:20-16:20   | De Huang (Peking University)              | Self-similar finite-time blowup with singular profiles of the generalized Constantin-Lax-Majda model                     |  |
| 16:30-17:30   | Jie Wan (Beijing Institute of Technology) | Some recent progress of helical vortices of 3D incompressible Euler equations  |  |
| 18:00-20:00   |   | Banquet: TBA   |  |

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| Nov. 30 (Sun) |  | Morning Chair: Jiajun Tong. Afternoon Chair: Xiaoyutao Luo.<br>Venue: Duke Kunshan University, Room: Innovation Building 1046 |  |
| Time          | Speaker                                      | Title (or activities)   |  |
| 9:00-10:00    | Diego Cordoba (ICMAT)                        | Vortex layer cascades and finite time singularities for incompressible fluids   |  |
| 10:00-10:20   |  | Coffee Break  |  |
| 10:20-11:20   | In-Jee Jeong (Seoul National University)     | Long time dynamics and stability of multi-vortex solution   |  |
| 11:30-12:00   | Seungjae Lee (Seoul National University)     | Sharp local well-posedness of $C^1$ vortex patches  |  |
| 12:00-14:00   |  | Lunch   |  |
| 14:00-15:00   | Chunjing Xie (Shanghai Jiao Tong University) | Rigidity for steady incompressible Euler system and its applications  |  |
| 15:00-15:20   |  | Coffee Break  |  |
| 15:20-16:20   | Ken Abe (Osaka Metropolitan University)      | Homogeneous steady states for the gSQG equations  |  |
| 16:30-17:30   | Yupei Huang (Imperial College London)        | Exponential Lower Bounds for Shear-Driven Advection--Diffusion  |  |
| 18:00-20:00   |  | Dinner: TBA   |  |

| Dec. 01 (Mon) |  | Morning Chair: Jeaheang Bang. Afternoon Chair: Hanye Zhu.<br>Venue: Duke Kunshan University, Room: Innovation Building Lecture Hall |
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| Time          | Speaker                                  | Title (or activities)   |
| 9:00-10:00    | Alexey Cheskidov (Westlake University)   | Instantaneous Type-I blow-up and non-uniqueness of smooth solutions to the Navier--Stokes equations                                 |
| 10:00-10:20   |  | Coffee Break  |
| 10:20-11:20   | Fei Wang (Shanghai Jiao Tong University) | Stability threshold of close-to-Couette shear flows with no-slip boundary conditions in 2D  |
| 11:30-12:00   | Andres Lain Sanclemente (ICMAT)          | Finite-time singularity via pendula for the forced 2D Bousinessq equation   |
| 12:00-14:00   |  | Lunch   |
| 14:00-15:00   | Luca Talamini (SISSA)                    | Some results on $L^{\infty}$ entropy solutions to systems of two conservation laws  |
| 15:00-15:20   |  | Coffee Break  |
| 15:20-16:20   | Nicola De Nitti (University of Pisa)     | Sharp bounds on enstrophy growth for the viscous Burgers equation   |
| 16:30-17:30   | Deokwoo Lim (Seoul National University)  | On the optimal rate of vortex stretching for axisymmetric Euler flows without swirl   |
| 18:00-20:00   |  | Dinner: TBA   |

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| Dec. 02 (Tue) |  | Morning Chair: Xiaoqian Xu.<br>Venue: Duke Kunshan University, Room: Library LIB1117 |  |
| Time          | Speaker                                      | Title (or activities)  |  |
| 9:00-10:00    | Yuanyuan Feng (East China Normal University) | The applications of dissipation enhancing flows to Cahn-Hilliard Equation            |  |
| 10:00-10:20   |  | Coffee Break   |  |
| 10:20-11:20   | Hanye Zhu (Duke University)                  | On conductivity problems   |  |
| 11:20-14:00   |  | Lunch  |  |
| 14:00-17:00   |  | Free afternoon   |  |
| 18:00-20:00   |  | Dinner: TBA  |  |