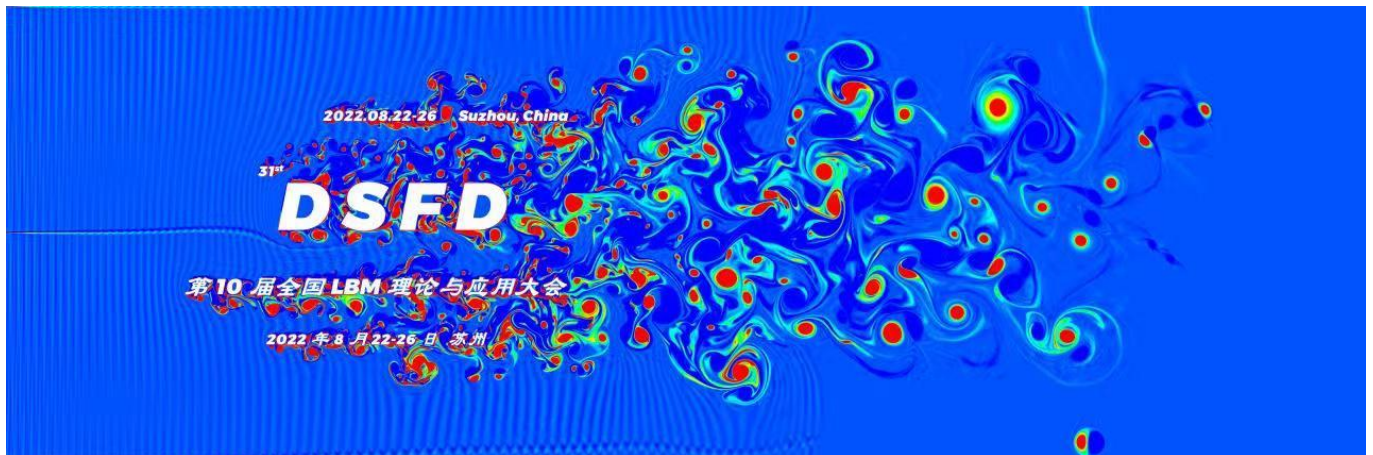


31st International Conference on Discrete Simulation of Fluid Dynamics DSFD 2022

in conjunction with

10th Chinese National Conference on Lattice Boltzmann Method and Applications



August 22-26, 2022

School of Mathematical Sciences, Soochow University, Suzhou, China

DSFD 2022

Suzhou, China, August 22-26, 2022

Conference Host:

School of Mathematical Sciences
Soochow University

Conference Venue:

Nanlin Hotel
20 Shiquan Street, Suzhou, China

Conference Chairs:

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Prof. Kai Hong Luo, University College London, UK

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Conference Program

Monday August 22

The time shown here is in Beijing time (GMT+8), please note the time difference with your local area.

Session 1		
Time	YuanCui Meeting Room(远翠厅), Nanlin Hotel VooV link: https://voovmeeting.com/dm/QmC47FMdCPSE VooV Meeting ID: 464-025-130	Session Chair
8:00-8:40	Opening Ceremony Prof. Alexander Wagner , North Dakota University Prof. Xiaofeng Li , Vice President of Soochow University Conference Sponsor representatives	Prof. Yuehong Qian Soochow University
8:40-9:40	Opening keynote talk Recent research progress in fluid turbulence Prof. Shiyi Chen Southern University of Science and Technology	
9:40-10:10	Tea Break and Conference Photo	
10:10-11:40	Tutorial talk 1 An introduction to multiscale modeling for non-equilibrium transport Prof. Kun Xu Hong Kong University of Science and Technology	
11:40-12:00	Conference Sponsor talk Paratera cloud-One click to access super cloud computing service Dr. Li Ding Paratera	

12:00-13:30 Lunch

Session 2		
Time	YuanCui Meeting Room(远翠厅), Nanlin Hotel VooV link: https://voovmeeting.com/dm/6etgtHdt3uAs VooV Meeting ID: 517-064-892	Session Chair
13:30-15:00	Tutorial talk 2 From Softmat to Dropmat: computer simulation of droplet-based states of matter Prof. Sauro Succi IIT Rome, Harvard University	Prof. Kun Xu Hong Kong University of Science and Technology
15:00-16:30	Tutorial talk 3 The magic two-relaxation-time lattice Boltzmann method for the Navier–Stokes equations as a macroscopic finite difference scheme across three time levels Prof. Paul Dellar Oxford University	

16:30-16:45 Tea Break

Session 3

YuanCui Meeting Room(远翠厅), Nanlin Hotel

VooV link:<https://voovmeeting.com/dm/6etgtHDT3uAs>

VooV Meeting ID: 517-064-892

Time

Session Chair

Invited talk 1

General fourth order Chapman-Enskog expansion of lattice Boltzmann schemes

16:45-17:30

Prof. Francois Dubois

Université Paris-Saclay

Prof. Bruce Boghosian

Tufts University

Prof. Pierre Lallemand

Prof. Huilin Lai

Fujian Normal University

Invited talk 2

A conservative hybrid lattice Boltzmann method for compressible flows

17:30-18:15

Prof. Pierre Sagaut

Aix-Marseille University

Tuesday Morning August 23

The time shown here is in Beijing time (GMT+8), please note the time difference with your local area.

Session 4		
Time	YuanCui Meeting Room(远翠厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/UROIe0yT8L8C VooV Meeting ID: 438-075-112	Session Chair
8:00-8:45	Invited talk 3 Multiple relaxation time collision model in Hermite spectral space Prof. Xiaowen Shan Southern University of Science and Technology	Prof. Chuandong Lin Sun Yat-sen University
8:45-9:30	Invited talk 4 Unitary Qubit Lattice Algorithms for Maxwell's Equations in Uniaxial Dielectric Media Prof. George Vahala William & Mary	
9:30-10:15	Invited talk 5 Pore-scale and multiscale numerical study of physicochemical processes in PEM fuel cell Prof. Li Chen, Prof. Wenquan Tao Xi'an Jiaotong University	

10:15-10:30 Tea Break

Session 5		
Time	YuanCui Meeting Room(远翠厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/UROIe0yT8L8C VooV Meeting ID: 438-075-112	Session Chair
10:30-11:15	Invited talk 6 On the inverse-design considerations of Boltzmann-equation based methods for continuum flows Prof. Lian-Ping Wang Southern University of Science and Technology	Prof. Jie Wu Nanjing University of Aeronautics & Astronautics
11:15-12:00	Invited talk 7 Modeling and analysis of multiple-relaxation-time lattice Boltzmann method: A unified framework Prof. Baochang Shi Huazhong University of Science and Technology	

12:00-13:30 Lunch

Tuesday Afternoon August 23

The time shown here is in Beijing time (GMT+8), please note the time difference with your local area.

Parallel Session 1 Multiphase Flow 1 YuanCui Meeting Room(远翠厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/IZdjAWklDsdY VooV Meeting ID: 618-002-605			Session Chair
13:30-13:50	Talk S1-1 Parallel Simulations of Marangoni Convection in Surfactant Laden Multiphase Flows and Self-Rewetting Fluids using Central Moment Lattice Boltzmann Method	Mr. William T. Schupbach University of Colorado Denver	Prof. Yiqian Wang Soochow University
13:50-14:10	Talk S1-2 An accurate lattice Boltzmann method for tracking the interface of multiphase fluids	Prof. Hong Liang Hangzhou Dianzi University	
14:10-14:30	Talk S1-3 A phase-field-based lattice Boltzmann model for simulating N immiscible incompressible fluids	Dr. Xiaolei Yuan Hebei University	
14:30-14:50	Talk S1-4 A diffusive-domain Phase-field lattice Boltzmann method for two-phase flows in complex geometries	Ms. Xi Liu Huazhong University of Science and Technology	
14:50-15:10	Talk S1-5 Phase field lattice Boltzmann model for two-phase flow with large viscosity ratio	Dr. Jin Bao Huazhong University of Science and Technology	
15:10-15:30	Talk S1-6 Numerical simulation of bubble rising process in aluminum alloy molten pool under large density ratio condition	Wang Yu Huazhong University of Science & Technology	
Parallel Session 2 IB-LBM Ruiyun Conference Room(瑞云厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/APaa5lJQNyt5 VooV Meeting ID: 811-003-522			Session Chair
13:30-13:50	Talk S2-1 Numerical study on vortex-induced vibration of an elastically mounted rectangular cylinder: Effects of flow velocity and damping ratio		

	Mr. Yuhang Zeng Nanjing University of Aeronautics and Astronautics	
13:50-14:10	Talk S2-2 A Lattice Boltzmann Method for Multiphase Flow on Curved Boundaries Based on Immersed Boundary Method Mr. Hong-wei Xiao Shantou University	
14:10-14:30	Talk S2-3 A simple diffuse interface immersed-boundary scheme for binary flows with curved boundaries Mr. Jin-Xiang Zhou College of Engineering, Shantou University	Prof. Yikun Wei Zhejiang Sci-Tech University
14:30-14:50	Talk S2-4 Wetting dynamics of droplets: an immersed boundary lattice Boltzmann approach Dr. Francesca Pelusi Helmholtz Institute Erlangen-Nürnberg for Renewable Energy	
14:50-15:10	Talk S2-5 Lattice Boltzmann simulations of dense suspensions of soft particles with surface viscosity Dr. Fabio Guglietta Helmholtz Institute Erlangen-Nürnberg for Renewable Energy	
15:10-15:30	Talk S2-6 Numerical scheme for fluid-structure-piezoelectric interaction by coupling the corotational finite element method and the regularized lattice Boltzmann method for energy harvesting at low Reynolds numbers Dr. Zhe Li Ecole Centrale de Nantes	
Time	Parallel session 3 Basic Model 1 YaoHua Conference Room(瑶华厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/Y8ESnzFwMIMj VooV Meeting ID: 905-010-136	Session Chair
13:30-13:50	Talk S3-1 Characteristic boundary condition for high-order lattice Boltzmann model in acoustic problems Mr. Xuan Chen Southern University of Science and Technology	
13:50-14:10	Talk S3-2 A diffuse-reflection curved boundary condition for high-order spectral multiple-relaxation -time lattice Boltzmann equation Mr. Zuoxu Li Southern University of Science and Technology	Prof. Rui Du Southeast University
14:10-14:30	Talk S3-3 Lattice Boltzmann method simulation and analysis of two-dimensional trapezoidal cavity flow based on GPU Ms. Baihui Chen Huazhong University of Science and Technology	

14:30-14:50	<p>Talk S3-4 An improved phase-field-based lattice Boltzmann model for the dendritic growth</p> <p style="text-align: right;">Dr. Xingchun Xu Harbin Institute of Technology</p>	
14:50-15:10	<p>Talk S3-5 Incompressible finite-difference lattice Boltzmann method and multiple-distribution-function finite-difference Boltzmann method for incompressible Navier-Stokes equation</p> <p style="text-align: right;">Ms. Xinmeng Chen Huazhong University of Science and Technology</p>	
15:10-15:30	<p>Talk S3-6 A pseudopotential lattice Boltzmann analysis for multicomponent flow</p> <p style="text-align: right;">Dr. Yong Zhao Changsha University of Science and Technology</p>	

15:30-15:50 Tea Break

Parallel Session 4 Multiphase Flow 2 Ruiyun Conference Room(瑞云厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/APaa5IJQNYt5 VooV Meeting ID: 811-003-522			Session Chair
15:50-16:10	Talk S4-1 Study on the evolution law of double bubbles coalescence neck based on pseudo-potential lattice Boltzmann method	Ms. Lina Wang Xi'an University of Architecture and Technology	Prof. Rou Chen China Jiliang University
16:10-16:30	Talk S4-2 Morphological analysis of collapsing cavitation bubble near solid wall with complex geometry	Mr. Fangyong Shu Hohai University	
16:30-16:50	Talk S4-3 The inception, growth, and collapse of near-wall vapor cavitation bubble with a thermal lattice Boltzmann method	Dr. Xiaolong He Chongqing Jiaotong University	
16:50-17:10	Talk S4-4 Effects of Dynamic Contact Angles on Coalescence-Induced Bubble Departure	Ms. Panpan Zhao Shanghai Jiao Tong University	
17:10-17:30	Talk S4-5 Phase-field modeling of multi-component elasto-capillary fluid-solid interactions: Theory and numerical	Mr. Sthavishtha Bhopalam Purdue University	
Parallel Session 5 Flows in porous media YaoHua Conference Room(瑶华厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/Y8ESnzFwMIMj VooV Meeting ID: 905-010-136			Session Chair
15:50-16:10	Talk S5-1 Effects of microscopic pore-throat structure on macroscopic flow parameters of porous media: a Lattice Boltzmann study	Prof. Bei Wei China University of Petroleum (East China)	Prof. Yousheng Xu Zhejiang University of Science and Technology
16:10-16:30	Talk S5-2 Discrete Boltzmann modeling of compressible nonequilibrium flows with or without chemical reactions	Prof. Chuandong Lin Sun Yat-sen University	
16:30-16:50	Talk S5-3 Pore-scale flow properties of a Carbon fibre graphite felt electrode for redox flow battery applications using large domain size micro-CT imaging and		

	Lattice-Boltzmann flow calculations	Dr. Edo S. Boek Queen Mary University of London	
16:50-17:10	Talk S5-4 Collective transport of droplets through porous media	Dr. Rodrigo C. V. Coelho Universidade de Lisboa	
17:10-17:30	Talk S5-5 Effect of the fluid-air interface in solid-liquid extraction	Mr. André F. V. Matias Universidade de Lisboa	
Time	Parallel session 6 Basic Model 2 YuanCui Meeting Room(远翠厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/IZdjAWklDsdY VooV Meeting ID: 618-002-605	Session Chair	
15:50-16:10	Talk S6-1 Large-Eddy Simulation for Spectral Multiple-Relaxation-Time Lattice Boltzmann	Mr. Su Yan Southern University of Science and Technology	
16:10-16:30	Talk S6-2 Simplified and highly stable lattice Boltzmann method and its applications to multiphase flows and phase-change problems	Prof. Zhen Chen Shanghai Jiao Tong University	
16:30-16:50	Talk S6-3 Brute force analysis of kinetic relaxation parameters for multiple-relaxation-time lattice Boltzmann methods	Mr. Stephan Simonis Karlsruhe Institute of Technology	Dr. Xuesen Chu China Ship Scientific Research Center
16:50-17:10	Talk S6-4 LBM on non-uniform grids without interpolation	Mr. Arseniy Berezin Keldysh Institute of Applied Mathematics, RAS National Research Nuclear University MEPhI	
17:10-17:30	Talk S6-5 Characteristic Boundary Conditions for Multispeed Thermal Lattice Boltzmann Methods	Mr. Friedemann Klass University of Wuppertal	
17:30-17:50	Talk S6-6 A novel thermal lattice Boltzmann model with heat source and its application in incompressible flow	Prof. Zhengdao Wang Zhejiang Sci-Tech University	

19:00-21:00 Conference Banquet at Nanlin Hotel

Wednesday Morning August 24

The time shown here is the Beijing time (GMT+8), please note the time difference with your local area.

Session 6		
Time	YuanCui Meeting Room(远翠厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/m36tdHQ6iDIJ VooV Meeting ID: 533-041-573	Session Chair
8:00-8:45	Invited talk 8 Well-balanced kinetic schemes for two-phase flows Prof. Zhaoli Guo Huazhong University of Science and Technology	Prof. Xiaodong Niu Shantou University
8:45-9:30	Invited talk 9 Discrete Boltzmann modeling of non-equilibrium complex flows Prof. Aiguo Xu Institute of Applied Physics and Computational Mathematics	
9:30-10:15	Invited talk 10 Efficient discrete unified gas kinetic scheme for all flow regimes Prof. Chengwen Zhong Northwestern Polytechnical University	

10:15-10:30 Tea Break

Session 7		
Time	YuanCui Meeting Room(远翠厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/m36tdHQ6iDIJ VooV Meeting ID: 533-041-573	Session Chair
10:30-11:15	Invited talk 11 Gas Kinetic Flux Solver and Its Application to Continuous and Rarefied Flows Prof. Liming Yang Nanjing University of Aeronautics and Astronautics	Dr. Wenwei Wu China Ship Scientific Research Center
11:15-12:00	Invited talk 12 Pseudo-Particle Modeling of Gases at Mesoscale Prof. Wei Ge Institute of Process Engineering, Chinese Academy of Sciences	

12:00-13:30 Lunch

Wednesday Afternoon August 24

The time shown here is in Beijing time (GMT+8), please note the time difference with your local area.

Parallel Session 7 Multiphase Flow 3		
Time	YuanCui Meeting Room(远翠厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/ec1KpWRvZIVW VooV Meeting ID: 257-064-821	Session Chair
13:30-13:50	Talk S7-1 A diffuse-interface lattice Boltzmann method for dendritic growth with thermosolutal convection and melt flow Dr. Chengjie Zhan Huazhong University of Science and Technology	Prof. Liming Yang Nanjing University of Aeronautics and Astronautics
13:50-14:10	Talk S7-2 Lattice Boltzmann Simulation of Droplet Trapping and Oscillation by Viscoelastic Fluids Prof. Chiyu Xie University of Science and Technology Beijing	
14:10-14:30	Talk S7-3 Deformation and breakup of a Giesekus viscoelastic droplet in a Newtonian shear flow Mr. Wanglai Ni Xi'an Jiaotong University	
14:30-14:50	Talk S7-4 Numerical Study on Air Entrapment of Three-dimensional Droplet Impingement Dr. Xiaoyu Wu Xi'an Jiaotong University	
14:50-15:10	Talk S7-5 Lattice Boltzmann study of drying of colloidal suspension considering local nanoparticle effect Dr. Feifei Qin Northwestern Polytechnical University	
15:10-15:30	Talk S7-6 Cascaded lattice Boltzmann modeling of liquid-gas phase change: droplet evaporation, drying of porous media and pool boiling Dr. Linlin Fei ETH Zurich	
Parallel Session 8 AI for LBM and Other topics		
Time	Ruiyun Conference Room(瑞云厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/eUdYX4QJKAgP VooV Meeting ID: 164-010-066	Session Chair
13:30-13:50	Talk S8-1 (AI for LBM) Auto-ejection of liquid jet from a nozzle Dr. Fang Shan Huazhong University of Science and Technology	

13:50-14:10	Talk S8-2 (AI for LBM) Research of Micro-scale Surface for Flow Loss Control Driven by Near-wall flow data	Dr. Liyue Wang Fudan University	Prof. Jialin Lou Soochow University
14:10-14:30	Talk S8-3 (Flow in porous media) Prediction of spontaneous imbibition with gravity in porous media micromodels	Mr. Sheng Li Xi'an Jiaotong University	
14:30-14:50	Talk S8-4 (Compressible flow) Lattice Boltzmann simulation of shock wave structure	Dr. Yongliang Feng Northwestern Polytechnical University	
14:50-15:10	Talk S8-5 (AI for LBM) Local Encryption Algorithm Based on Multi Grid for LBM	Mr. Rupu Wei China University of Petroleum (East China)	
15:10-15:30	Talk S8-6 (AI for LBM) Towards learning a collisional operator for the Lattice Boltzmann Method from data	Dr. Alessandro Gabbana Eindhoven University of Technology	
Parallel session 9 Non-equilibrium Phenomena YaoHua Conference Room(瑶华厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/1ACiDFaXIOv0 VooV Meeting ID: 477-074-002			
13:30-13:50	Talk S9-1 Collective properties of lattice-based models for diffusive chaotic systems	Mr. Shan-Feng Xiao Soochow University	Prof. Haihu Liu Xi'an Jiaotong University
13:50-14:10	Talk S9-2 Numerical study of adsorption and desorption in rarefied gas flow	Dr. Ziyang Xin Huazhong University of Science and Technology	
14:10-14:30	Talk S9-3 Numerical study of detonation from a kinetic perspective: based on discrete Boltzmann method	Mr. Xianli Su Sun Yat-sen University	
14:30-14:50	Talk S9-4 Eulerian mass-conserving Particles on Demand method	Ms. Yu Ji Tsinghua University / ETH Zurich	
14:50-15:10	Talk S9-5 Discrete Boltzmann method for non-equilibrium phase transition processes		

Mr. Yidi Ma

Sun Yat-sen University

Talk S9-6

15:10-15:30

Characterization of the Onsager-Regularized LBM

Dr. Anirudh Jonnalagadda

Indian Institute of Science Bangalore

15:30-15:50

Tea Break

Parallel Session 10 Multiphase Flow 4 YuanCui Meeting Room(远翠厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/ec1KpWRvZIVW VooV Meeting ID: 257-064-821			Session Chair
15:50-16:30	Talk S10-1 Lattice Boltzmann modeling of fluid flows and their effects on solidification microstructure during additive manufacturing and welding of alloys	Prof. Qingyu Zhang Soochow University	Prof. Hui Xu Shanghai Jiao Tong University
16:10-16:30	Talk S10-2 Mesoscale modelling of the Tolman length in multi-component systems	Dr. Matteo Lulli Southern University of Science and Technology	
16:30-16:50	Talk S10-3 Recent advances of high-fidelity numerical methods in fluid mechanics	Prof. Hui Xu Shanghai Jiao Tong University	
16:50-17:10	Talk S10-4 Study of film dynamics using lattice Boltzmann method: Beyond lubrication approximation	Ms. Garima Singh Indian Institute of Technology Kanpur	
17:10-17:30	Talk S10-5 Achieving complete spreading in multi-fluid models at fluid interfaces and solid boundaries	Dr. Jack R. Panter Durham University	
Parallel Session 11 Application: Electromagnetic Ruiyun Conference Room(瑞云厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/eUdYX4QJKAgP VooV Meeting ID: 164-010-066			Session Chair
15:50-16:10	Talk S11-1 Boundary schemes for lattice Boltzmann methods for magnetohydrodynamics within walls with finite electrical conductivities	Mrs. Eman O. Yahia University of Colorado Denver	Dr. Yuxuan Chen Soochow University
16:10-16:30	Talk S11-2 Simplified lattice Boltzmann implementation of the quasi-static approximation for pipe flows under the presence of non-uniform magnetic fields	Dr. Hugo S. Tavares Federal University of Rio de Janeiro	
16:30-16:50	Talk S11-3 Central moments and multi relaxation time Lattice-Boltzmann implementation of the quasi-static approximation for pipe flows under the presence of non-uniform magnetic fields		

	Mr. Bruno M. da Silva Universidade Federal do Rio de Janeiro	
16:50-17:10	Talk S11-4 A simplified phase-field lattice Boltzmann method with a self-corrected magnetic field for the evolution of spike structures in ferrofluids Dr. Adnan Khan Shantou University	
17:10-17:30	Talk S11-5 Lattice Boltzmann method for scattering of electromagnetic waves by curved geometries Mr. Mohd Meraj Khan Indian Institute of Technology Madras	
Time	Parallel Session 12 Application: turbulence simulation YaoHua Conference Room(瑶华厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/1ACiDFaXIOv0 VooV Meeting ID: 477-074-002	Session Chair
15:50-16:10	Talk S12-1 Lattice Boltzmann model for Navier-Stokes equations with fractional Laplacian for turbulent Couette flow and parameters identification Prof. Rui Du Southeast University	
16:10-16:30	Talk S12-2 Secondary vortices statistics in the near-wake region during cylinder/wall interactions Mr. Shuang Zhang Shanghai Institute of Technology	Prof. Qing Li Central South University
16:30-16:50	Talk S12-3 Studies on trans-scale and spatial energy transfer mechanism of wall turbulence structures based on LBM Mr. Dongming Luo Shanghai Institute of Technology	
16:50-17:10	Talk S12-4 Synthetic turbulence generator for lattice Boltzmann method RANS/LES interface Dr. Xiao Xue Chalmers University of Technology	

Thursday Morning August 25

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Session 8		
Time	YuanCui Meeting Room(远翠厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/nITzwOo3g0hf VooV Meeting ID: 797-028-425	Session Chair
8:00-8:45	Invited talk 13 LBM: CFD and beyond Prof. Moran Wang Tsinghua University	Prof. Zhaoli Guo Huazhong University of Science and Technology
8:45-9:30	Invited talk 14 Sunway TaihuLight: The system and applications Dr. Zhao Liu National Supercomputing center, Wuxi	
9:30-10:15	Invited talk 15 The Key Techniques of Using LBM for Fluid Problems with the Ternary Optical Processor Prof. Yi Jin Shanghai University	
10:15-10:30	Tea Break	
Session 9		
Time	YuanCui Meeting Room(远翠厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/nITzwOo3g0hf VooV Meeting ID: 797-028-425	Session Chair
10:30-11:15	Invited talk 16 The current state of SWLBM for Large-scale Fluid Simulations Dr. Xuesen Chu China Ship Scientific Research Center	Prof. Haibo Huang University of Science and Technology of China
11:15-12:00	Invited talk 17 Advanced Aerodynamic Design based CFD and Development of Application of New Flow Control Technologies in Civil Aircraft Dr. Meihong Zhang Commercial Aircraft Corporation of China	
12:00-13:30	Lunch	

Thursday Afternoon August 25

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Parallel Session 13 Multiphase Flow 3		
Time	YuanCui Meeting Room(远翠厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/Sq7bogZsLWgY VooV Meeting ID: 611-074-336	Session Chair
13:30-13:50	Talk S13-1 A mesoscopic scheme to measure contact angle on curved surface in lattice Boltzmann method Ms. Yangsha Liu Guangxi Normal University	Prof. Binghai Wen Guangxi Normal University
13:50-14:10	Talk S13-2 High-order modelling of multiphase flows: based on discrete Boltzmann method Mr. Shuang Wang China Jiliang University	
14:10-14:30	Talk S13-3 Direct simulation on corroded heterogenous particle sedimentation mechanism by IB-LBM Zelin Zhao Shanghai Jiao Tong University	
14:30-14:50	Talk S13-4 Numerical simulation on pool boiling mechanism of horizontal gradient porous metals using Lattice Boltzmann method Sijia Yue Shanghai Jiao Tong University	
14:50-15:10	Talk S13-5 Dynamics of Wetting Ridges on Liquid Infused Surfaces Prof. Halim Kusumaatmaja Durham University	
Parallel Session 14 HPC		
Time	Ruiyun Conference Room(瑞云厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/xlAD04gVUhuq VooV Meeting ID: 144-070-823	Session Chair
13:30-13:50	Talk S14-1 A Simple One-step Index Algorithm for Implementation of Lattice Boltzmann Method on GPUs Mr. Kuang Ma Huazhong University of Science and Technology	Dr. Li Ding Paratera
13:50-14:10	Talk S14-2 A new algorithm of subgrid-scale eddy-viscosity model based on lattice Boltzmann method Mr. Heng Zhang Northwestern Polytechnical University	
14:10-14:30	Talk S14-3 GPU accelerated volumetric lattice Boltzmann model for image-based	

	hemodynamics in portal hypertension	Dr. Rou Chen China Jiliang University	
14:30-14:50	Talk S14-4 Towards GPU accelerated compressible lattice Boltzmann methods for industrial applications	Dr. Christophe Coreixas University of Geneva	
14:50-15:10	Talk S14-5 Mesh refinement on GPU for standard and multi-speed LBM	Prof. Jonas Latt University of Geneva	
Time	Parallel Session 15 Other CFD methods and SPD, DPD YaoHua Conference Room(瑶华厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/cVs9icD02c8G VooV Meeting ID: 309-026-204		Session Chair
13:30-13:50	Talk S15-1 Conservative DUGKS for non-equilibrium flow of monatomic gas	Mr. Shuyang Zhang Huazhong University of Science and Technology	
13:50-14:10	Talk S15-2 Influence of inter cube distance on the rarefied flow over a wall-mounted cube	Mr. Niranjan Nanjappa Birla Institute of Technology and Science-Pilani, Hyderabad Campus, Telangana	
14:10-14:30	Talk S15-3 Near-wall modelling of forests for atmosphere boundary layers using lattice Boltzmann method on GPU	Dr. Xiao Xue Chalmers University of Technology	Prof. Zhenhua Chai Huazhong University of Science and Technology
14:30-14:50	Talk S15-4 Modeling and simulation of the rupture of thin tear film by smoothed particle hydrodynamics	Prof. Xiaoyang Xu Xi'an University of Science and Technology	
14:50-15:10	Talk S15-5 Accurate and Efficient Splitting Methods for Dissipative Particle Dynamics	Dr. Xiaocheng Shang University of Birmingham	
15:10-15:30	Tea Break		

Parallel Session 16 Application: Life Science YaoHua Conference Room(瑶华厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/cVs9icD02c8G VooV Meeting ID: 309-026-204			Session Chair
15:30-15:50	Talk S16-1 Adhesion mechanism of deformable nanoparticles for targeting CTCS: A lattice Boltzmann analysis	Mr. Xiaolin Liu University of Science and Technology Beijing	Prof. Qingyu Zhang Soochow University
15:50-16:10	Talk S16-2 IB-LBM simulation of motor regulation of sperm	Prof. Yuan-Qing Xu Beijing Institute of Technology	
16:10-16:30	Talk S16-3 Imposing Ratios of Outlet Flow Rates on Large Arterial Networks with Two-Element Windkessel Model: Parametric Analysis	Mr. Sharp C. Y. Lo University College London	
16:30-16:50	Talk S16-4 Shape transition of sedimenting confined capsules	Mr. Danilo P. F. Silva Universidade de Lisboa	
Parallel Session 17 Mass and Heat Transfer Ruiyun Conference Room(瑞云厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/xlAD04gVUhuq VooV Meeting ID: 144-070-823			Session Chair
15:30-15:50	Talk S17-1 Heat transfer characteristics in Rayleigh-Bénard convection of temperature sensitive magnetic fluid with fluid-particle interaction	Ms. Mufeng Chen Longyan University	Prof. Xiaopeng Chen Northwestern Polytechnical University
15:50-16:10	Talk S17-2 Convergence improvement of the steady discrete unified gas kinetic scheme for radiative transfer equation	Mr. Xinliang Song Huazhong University of Science and Technology	
16:10-16:30	Talk S17-3 Lattice Boltzmann study of ion adsorption in porous electrode used in capacitive deionization	Dr. Rui Liu Jiangsu University of Science and Technology	
16:30-16:50	Talk S17-4 Lattice Boltzmann simulation of two phase reactive flow in porous media at pore-scale	Dr. Weiyu Zhang University of Shanghai for Science and Technology	

16:50-17:10	Talk S17-5 Study of compressible Rayleigh-Taylor instability with nonequilibrium effects by using discrete Boltzmann method	Prof. Huilin Lai Fujian Normal University	
Time	Parallel Session 18 Compressible Flow YuanCui Meeting Room(远翠厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/Sq7bogZsLWgY VooV Meeting ID: 611-074-336		Session Chair
15:30-15:50	Talk S18-1 Study on Nonequilibrium Effects of Shock Waves and Its Interference with Boundary Layers	Ms. Yue Bao Xiamen University	
15:50-16:10	Talk S18-2 Two-dimensional nine-velocity discrete Boltzmann method for compressible flows	Mr. Xiaopeng Sun Sun Yat-sen University	
16:10-16:30	Talk S18-3 High Speed Flows with Particles on Demand: Boundary Conditions	Mr. Abhimanyu Bhaduria ETH Zurich	Prof. Hong Liang Hangzhou Dianzi University
16:30-16:50	Talk S18-4 Particles on Demand for flows with strong discontinuities	Mr. Nikolaos Kallikounis ETH Zurich	
16:50-17:10	Talk S18-5 Lattice Boltzmann model for compressible non-ideal fluid simulation	Dr. Seyed Ali Hosseini ETH Zurich	
17:10-17:30	Talk S18-6 Rotational symmetry of the multiple-relaxation--time collision model	Dr. Xuhui Li Harbin Engineering University	

Friday August 26

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Session 10		
Time	YuanCui Meeting Room(远翠厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/AktCOENPkWYV VooV Meeting ID: 952-089-390	Session Chair
8:00-8:45	Invited talk 18 Uncertainty Quantification for Kinetic Equations Prof. Shi Jin Shanghai Jiao Tong University	Prof. Moran Wang Tsinghua University
8:45-9:30	Invited talk 19 Interfacial Salt Water on Carbon nanotube and Graphene Prof. Haiping Fang East China University of Science and Technology	
9:30-10:15	Invited talk 20 Recent progress in modelling the incompressible and compressible wall-bounded turbulence Prof. Lin Fu Hong Kong University of Science and Technology	

10:15-10:30 Tea Break

Session 11		
Time	YuanCui Meeting Room(远翠厅), Nanlin Hotel Voov Link: https://voovmeeting.com/dm/AktCOENPkWYV Voov Meeting ID: 952-089-390	Session Chair
10:30-11:15	Invited talk 21 Numerical simulations of ferrofluid droplets and surface instabilities in ferrofluid layers Prof. Xiaodong Niu Shantou University	Prof. Yuanqing Xu Beijing Institute of Technology
11:15-12:00	Invited talk 22 Development and analysis of a Rotated Lattice Boltzmann Flux Solver (RLBFS) with improved stability for compressible flows Prof. Yan Wang Nanjing University of Aeronautics and Astronautics	

12:00-13:30 Lunch

Session 12		
Time	YuanCui Meeting Room(远翠厅), Nanlin Hotel VooV Link: https://voovmeeting.com/dm/cmO9CXmRFFYs VooV Meeting ID: 936-001-388	Session Chair
13:30-14:15	Invited talk 23 Lattice Boltzmann method for modeling gas-solid two-phase flow	

	Prof. Limin Wang Institute of Process Engineering, Chinese Academy of Sciences	Prof. Dongke Sun Southeast University
14:15-15:00	Invited talk 24 Modeling helps failing heart to regenerate <div style="text-align: right;">Dr. Yong Wang Max Planck Institute for Dynamics and Self-Organization</div>	
15:00-15:45	Invited talk 25 High level discrete Boltzmann modeling system and its applications <div style="text-align: right;">Dr. Jianping Meng STFC Daresbury Laboratory</div>	
15:45-16:00	Tea Break	
16:00-17:00	Closing keynote talk Fundamental advancement in lattice Boltzmann methods and impact in advancement of high-tech frontiers <div style="text-align: right;">Dr. Hudong Chen Dassault Systemes</div>	Prof. Kai-Hong Luo University College London
17:00-17:30	Closing Ceremony	

List of presenters

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Monday Morning, August 22

Time	Session 1	Session Chair
8:00-8:40	Opening	Yuehong Qian
8:40-9:40	Shiyi Chen	
9:40-10:10	Tea Break and Conference Photo	
10:10-11:40	Kun Xu	
11:40-12:00	Li Ding	

Monday Afternoon, August 22

Time	Session 2	Session Chair
13:30-15:00	Sauro Succi	Kun Xu
15:00-16:30	Paul Dellar	
16:30-16:45	Tea Break	
16:45-17:30	Francois Dubois	Huilin Lai
17:30-18:15	Pierre Sagaut	

Tuesday Morning, August 23

Time	Session 3	Session Chair
8:00-8:45	Xiaowen Shan	Chuandong Lin
8:45-9:30	George Vahala	
9:30-10:15	Li Chen	
10:15-10:30	Tea Break	
10:30-11:15	Lian-Ping Wang	Jie Wu
11:15-12:00	Baochang Shi	

Tuesday Afternoon, August 23

Time	Parallel Session 1 Chair: Yiqian Wang	Parallel Session 2 Chair: Yikun Wei	Parallel Session 3 Chair: Rui Du
13:30-13:50	William T. Schupbach	Yuhang Zeng	Xuan Chen
13:50-14:10	Hong Liang	Hong-wei Xiao	Zuoxu Li
14:10-14:30	Xiaolei Yuan	Jin-Xiang Zhou	Baihui Chen
14:30-14:50	Xi Liu	Francesca Pelusi	Xingchun Xu
14:50-15:10	Jin Bao	Fabio Guglietta	Xinmeng Chen
15:10-15:30	Wang Yu	Zhe Li	Yong Zhao
15:30-15:50	Tea Break		
Time	Parallel Session 4 Chair: Rou Chen	Parallel Session 5 Chair: Yousheng Xu	Parallel Session 6 Chair: Xuesen Chu
15:50-16:10	Lina Wang	Bei Wei	Su Yan
16:10-16:30	Fangyong Shu	Chuandong Lin	Zhen Chen
16:30-16:50	Xiaolong He	Edo S. Boek	Stephan Simonis
16:50-17:10	Panpan Zhao	Rodrigo C. V. Coelho	Arseniy Berezin
17:10-17:30	Sthavishtha Bhopalam	André F. V. Matias	Friedemann Klass
17:30-17:50			Zhengdao Wang

Wednesday Morning, August 24			
Time	Session 6		Session Chair
8:00-8:45	Zhaoli Guo		Xiaodong Niu
8:45-9:30	Aiguo Xu		
9:30-10:15	Chengwen Zhong		
10:15-10:30	Tea Break		
Time	Session 7		Session Chair
10:30-11:15	Liming Yang		Wenwei Wu
11:15-12:00	Wei Ge		
Wednesday Afternoon, August 24			
Time	Parallel Session 7 Chair: Liming Yang	Parallel Session 8 Chair: Jialin Lou	Parallel Session 9 Chair: Haihu Liu
13:30-13:50	Chengjie Zhan	Fang Shan	Shan-Feng Xiao
13:50-14:10	Chiyu Xie	Liyue Wang	Ziyang Xin
14:10-14:30	Wanglai Ni	Sheng Li	Xianli Su
14:30-14:50	Xiaoyu Wu	Yongliang Feng	Yu Ji
14:50-15:10	Feifei Qin	Rupu Wei	Yidi Ma
15:10-15:30	Linlin Fei	Alessandro Gabbana	Anirudh Jonnalagadda
15:30-15:50	Tea Break		
Time	Parallel Session 10 Chair: Hui Xu	Parallel Session 11 Chair: Yuxuan Chen	Parallel Session 12 Chair: Qing Li
15:50-16:10	Qingyu Zhang	Eman O. Yahia	Rui Du
16:10-16:30	Matteo Lulli	Hugo S. Tavares	Shuang Zhang
16:30-16:50	Hui Xu	Bruno M. da Silva	Dongming Luo
16:50-17:10	Garima Singh	Adnan Khan	Xiao Xue
17:10-17:30	Jack R. Panter	Mohd Meraj Khan	

Thursday Morning, August 25			
Time	Session 8		Session Chair
8:00-8:45	Moran Wang		Zhaoli Guo
8:45-9:30	Zhao Liu		
9:30-10:15	Yi Jin		
10:15-10:30	Tea Break		
Time	Session 9		Session Chair
10:30-11:15	Xuesen Chu		Haibo Huang
11:15-12:00	Meihong Zhang		
Thursday Afternoon, August 25			
Time	Parallel Session 13 Chair: Binghai Wen	Parallel Session 14 Chair: Li Ding	Parallel Session 15 Chair: Zhenhua Chai
13:30-13:50	Yangsha Liu	Kuang Ma	Shuyang Zhang
13:50-14:10	Shuange Wang	Heng Zhang	Niranjan Nanjappa
14:10-14:30	Zelin Zhao	Rou Chen	Xiao Xue
14:30-14:50	Sijia Yue	Christophe Coreixas	Xiaoyang Xu
14:50-15:10	Halim Kusumaatmaja	Jonas Latt	Xiaocheng Shang
15:10-15:30	Tea Break		

Time	Parallel Session 16 Chair: Qingyu Zhang	Parallel Session 17 Chair: Xiaopeng Chen	Parallel Session 18 Chair: Hong Liang
15:30-15:50	Xiaolin Liu	Mufeng Chen	Yue Bao
15:50-16:10	Yuan-Qing Xu	Xinliang Song	Xiaopeng Sun
16:10-16:30	Sharp C. Y. Lo	Rui Liu	Abhimanyu Bhadauria
16:30-16:50	Danilo P. F. Silva	Weiyu zhang	Nikolaos Kallikounis
16:50-17:10		Huilin Lai	Seyed Ali Hosseini
17:10-17:30			Xuhui Li

Friday Morning, August 26

Time	Session 10	Session Chair
8:00-8:45	Shi Jin	Moran Wang
8:45-9:30	Haiping Fang	
9:30-10:15	Lin Fu	
10:15-10:30	Tea Break	
Time	Session 11	Session Chair
10:30-11:15	Xiaodong Niu	Yuanqing Xu
11:15-12:00	Yan Wang	

Friday Afternoon, August 26

Time	Session12	Session Chair
13:30-14:15	Limin Wang	Dongke Sun
14:15-15:00	Yong Wang	
15:00-15:45	Jianping Meng	
15:45-16:00	Tea Break	
16:00-17:00	Hudong Chen	Kai-Hong Luo
17:00-17:30	Closing Ceremony	

Map

From conference venue Nanlin Hotel to Soochow University



Nanlin Hotel

Soochow University

You can walk through the Shiquan Street to enter the Soochow University. It is about **1.1 km**, takes **16 minutes** walking there.

Contact

If you have any inquiry, please contact the local organizing committee member:

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