

Conference Programme

5 July (Sunday)	
09:00-17:00	Registration (San Want Hotel Xining)
18:30-20:30	Dinner

6 July (Monday)	
08:30-08:50	Registration (San Want Hotel Xining)
08:50-09:30	Opening Ceremony Speeches by Profs. Y. T. Chew, N. Zhao and C. Shu

Plenary Talks	
Chairman: Yong Tian Chew	
09:30-10:00	RKDG METHOD WITH CONSERVATION CONSTRAINTS AND HIERARCHICAL RECONSTRUCTION LIMITER FOR SOLVING CONSERVATION LAWS Zhiliang XU
10:00-10:30	THIN FILM MICRO-SENSORS, MICRO-ACTUATORS AND MICROFLUIDICS Hejun DU
10:30-11:00	Tea Break

Chairman: Yufeng Yao	
11:00-11:30	COST-EFFECTIVE FABRICATION OF WETTABILITY GRADIENT COPPER SURFACE BY SCREEN PRINTING AND ITS APPLICATION TO CONDENSATION HEAT TRANSFER Tzong-Shyng LEU
11:30-12:00	BOUNDARY CONDITION-ENFORCED IB-LBM AND ITS APPLICATIONS FOR BLUFF BODY FLOW CONTROL Jie WU
12:00-14:00	Lunch

Computational Fluid Dynamics I, 6 July (Monday), Room A	
Chairman: Ning Zhao	
14:00-14:30	NUMERICAL STUDY OF UNSTEADY SUPERCAVITATION PERTURBED BY A PRESSURE WAVE Boo Cheong KHOO , Zheng Jiang Guo
14:30-14:50	EVALUATION OF THE PERFORMANCE OF THE HYBRID LATTICE BOLTZMANN BASED NUMERICAL FLUX ZHENG HongWei, Shu Chang
14:50-15:10	IMPACT OF BOOSTERS TO THE STRAP-ON ROCKET AERODYNAMIC DAMPING ZHU Jian , Xue Fei, Hou Yingyu, Ji Chen, Liu Ziqiang, Wu Yansen
15:10-15:30	NUMERICAL STUDY OF CONTROL OF FLOW SEPARATION BEHIND A BACKWARD-FACING STEP WITH NANOSECOND PLASMA ACTUATOR ZHENG Jiang Guo , B.C. Khoo, J. Li, Z.J. Zhao, Y.D. Cui
15:30-15:50	THE INVESTIGATION OF GHOST FLUID METHOD FOR SIMULATING THE COMPRESSIBLE TWO-MEDIUM FLOW LU Haitian , Zhao Ning, Wang Donghong
15:50-16:10	Tea Break

Computational Fluid Dynamics II, 6 July (Monday), Room A	
Chairman: Boo Cheong Khoo	
16:10-16:40	DESIGN, MODELING AND POTENTIAL APPLICATIONS OF A MICROFLUIDIC OSCILLATOR XIA Huanming , Wang Zhiping
16:40-17:00	CFD SIMULATION OF CAPILLARY RISE OF LIQUID IN CYLINDRICAL CONTAINER WITH LATERAL VANES LIU Xiao-Lin , Huang Yi-Yong
17:00-17:20	ACOUSTIC STREAMING AND RADIATION FORCE IN MICROFLUIDIC DEVICES Kian-Meng LIM , Shahrokh Sepehrirahnama
17:20-17:40	AN EMPIRICAL METHOD FOR FAST PREDICTION OF RAREFIED FLOW FIELD AROUND A VERTICAL PLATE HE Tao , Wang Jiang-Feng
17:40-18:00	THE NUMERICAL STUDY WITH DYNAMIC MESH ON THE POLLUTION CONTROL EFFECT OF OPERATING TABLE PROTECTED BY LAMINAR FLOW SCREEN FAN Juli , Tian Lu, Wu Ge Jia Xudong
18:00-18:20	MULTI-DISCIPLINARY OPTIMIZATION FOR AIR-BREATHING HYPERSONIC VEHICLE DESIGN WU Peng , Tang Zhili, Sheng Jianda

Application of Fluid Mechanics I, 6 July (Monday), Room B	
Chairman: Xiao-Dong Niu	
14:00-14:30	SPATIALLY-AVERAGED DIFFUSIVITIES FOR POLLUTANT TRANSPORT IN VEGETATED FLOWS Huang Jun, Zhang Xiaofeng, Vivien Pei Wen CHUA
14:30-14:50	CONCENTRATION DEPENDENCE OF YIELD STRESS AND DYNAMIC MODULI OF KAOLINITE AND BENTONITE SUSPENSIONS LIN Yuan , Nhan Phan-Thien, Boo Cheong Khoo
14:50-15:10	NUMERICAL STUDY OF GAS-SOLID TWO-PHASE FLOW IN A CYCLONE SEPARATOR SHI Ya-Ping , Huang Shan, Niu Xiao-Dong, Qu Biao, Zhang Xing-Wei
15:10-15:30	SETTLING OF MONODISPERSE AND POLYDISPERSE SEDIMENTS AT ZERO REYNOLDS NUMBER Thinh X. HO , Nhan Phan-Thien, Boo Cheong Khoo
15:30-15:50	EFFECT OF PARTICLE PROPERTIES ON THE SEPARATION PERFORMANCE OF CYCLONE SEPARATORS LIU Lin , Dou Hua-Shu, Chen Xiao-Ping

15:50-16:10	Tea Break
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Turbulent Flow, 6 July (Monday), Room B	
Chairman: Qingdong Cai	
16:10-16:40	WAVE-GENERATED FLOWS ON THE WATER SURFACE Michael SHATS , Horst Punzmann, Nicolas Francois, Xia Hua
16:40-17:00	EFFECTS OF THE COMPUTATIONAL DOMAIN ON THE SECONDARY FLOW IN TURBULENT PLANE COUETTE FLOW GAI Jie , Xia Zhenhua, Cai Qingdong
17:00-17:20	PAIR SEPARATION AND STRETCHING IN LABORATORY TWO-DIMENSIONAL TURBULENCE XIA Hua , Nicolas Francois, Horst Punzmann, Michael Shats
17:20-17:40	WALL-HEATING EFFECTS ON FLAT-PLATE BOUNDARY LAYER TRANSITION AT MACH 6 Shashank KHURANA , Lee Cunbiao
17:40-18:00	LARGE-EDDY SIMULATION OF SHOCK-WAVE/TURBULENT BOUNDARY-LAYER INTERACTIONS AND ITS CONTROL USING SPARKJET YANG Guang , Yao Yufeng, Fang Jian, Gan Tian, Lu Lipeng
18:00-18:20	NUMERICAL SIMULATION FOR COMPRESSIBLE MAGNETOHYDRODYNAMIC TURBULENCE YANG Yan , Wan Minping, Shi Yipeng, Yang Kun, Chen Shiyi

18:30-20:30	Dinner
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Computational Fluid Dynamics III, 7 July (Tuesday), Room A	
Chairman: Jun-Jie Huang	
8:00-8:30	THE CHARACTERISTICS OF THE JET IMPACT DURING THE INTERACTION BETWEEN A BUBBLE AND A WALL Li Shuai, Wang Shi-Ping, ZHANG A-Man
8:30-8:50	MODELLING AIR AND WATER TWO-PHASE ANNULAR FLOW IN SMALL HORIZONTAL PIPE YAO Jun , Yao Yufeng, A. Arini, S. McIlwain, T.J. Gordon, S.-H. Jin
8:50-9:10	A MARKER-BASED EULERIAN-LAGRANGIAN METHOD FOR MULTIPHASE FLOW WITH SUPERSONIC COMBUSTION FAN Xiaofeng , Wang Jiangfeng
9:10-9:30	NUMERICAL AND EXPERIMENTAL STUDY OF VIOLENT SLOSHING UNDER ROTATIONAL EXCITATION LUO Min , Chan Ghee Koh, Gao Mimi, Bai Wei
9:30-9:50	BUBBLE BURSTING AT A FREE SURFACE IN A CLOSED DOMAIN WANG Shi-Ping , Zhang Shuai, Liu Nian-Nian
9:50-10:10	Tea Break

Computational Fluid Dynamics IV, 7 July (Tuesday), Room A	
Chairman: A-Man Zhang	
10:10-10:40	PHASE-FIELD-BASED SIMULATION OF AXISYMMETRIC BINARY FLUIDS BY USING VORTICITY-STREAMFUNCTION FORMULATION HUANG Jun-Jie
10:40-11:00	AN IMPROVED MOMENTUM-EXCHANGED IMMERSSED BOUNDARY-BASED LATTICE BOLTZMANN METHOD FOR INCOMPRESSIBLE VISCOUS THERMAL FLOWS CHEN Mu-Feng , Niu Xiao-Dong, Ma Yi-Ren, H. Yamaguchi, Y. Iwamoto
11:00-11:20	ADAPTIVE HYBRID CARTESIAN GRID METHOD AND ITS APPLICATIONS ON MULTI-ELEMENT AIRFOILS SHEN Zhiwei , Zhao Ning
11:20-11:40	LBM SIMULATION OF THREE-DIMENSIONAL FLOWS THROUGH A WIND TURBINE WITH ROTATING BLADES Ma Yi-Ren, HUANG Shan , Niu Xiao-Dong, Song Ming-Jian, Zhang Xing-Wei
11:40-12:00	STUDY OF THREE-DIMENSIONAL ROTATIONAL EFFECT ON ROTOR ICING WANG Zhengzhi , Zhu Chengxiang, Zhu Chunling
12:00-12:20	METHOD FOR DETERMINING CRITICAL ICE SHAPES OF AIRCRAFT DAI Hao , Zhu Chun-ling, Zhao Huan-yu

Experimental Fluid Dynamics I, 7 July (Tuesday), Room C	
Chairman: Ruey-Jen Yang	
8:00-8:30	ON THE BOUNDARY FLOW USING PULSED NANOSECOND DBD PLASMA ACTUATORS ZHAO Zijie , Li Jiun-Ming, Zheng Jianguo, B. C. Khoo, Cui Yongdong
8:30-8:50	SHOCK EXCURSION IN TRANSONIC CONVEX-CORNER FLOWS CHUNG Kung-Ming , Chang Po-Hsiung, Chang Keh-Chin
8:50-9:10	ACTIVE FLOW CONTROL OF LAMINAR SEPARATION BUBBLES ON A RECTANGULAR WING USING MICRO SYNTHETIC JETS ZUO Wei , Gu Yun-Song, Chen Yong-He, Wang Qi-Te
9:10-9:30	AEROELASTIC ANALYSES OF VERTICAL TAIL BUFFETING INDUCED BY VORTEX BREAKDOWN ZHAO Zijie
9:30-9:50	VELOCITY MEASUREMENTS OF TURBULENT WAKE FLOW OVER A CIRCULAR CYLINDER SHIH Chang-Lung , Chen Wei-Cheng, Chang Keh-Chin, Wang Muh-Rong

9:50-10:10	Tea Break
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Experimental Fluid Dynamics II, 7 July (Tuesday), Room C	
Chairman: Keh-Chin Chang	
10:10-10:40	ENERGY CONVERSION FROM SALINITY GRADIENT IN MICROCHANNEL PATTERNED WITH NAFION MEMBRANE Chang Che-Rong, Yeh Ching-Hua, Yeh Hung-Chun, YANG Ruey-Jen
10:40-11:00	EXPERIMENT STUDY OF SLUG FLOW IN HORIZONTAL MULTIPHASE PIPELINES Wai Lam LOH , Thiam Teik Wan
11:00-11:20	AN UNSTEADY AERODYNAMIC SIMULATION TEST BASED ON GROUND ELECTROMAGNETIC DRY TUNNEL HOU Ying-Yu , Fu Zhi-Chao, Zhu Jian, Liu Zi-Qiang
11:20-11:40	LAMINAR-SEPARATION-BUBBLE CONTROL BY AC-DBD PLASMA OVER AIRFOIL AT LOW REYNOLDS NUMBERS MENG Xuanshi , Yan Xu, Hu Haiyang, Liu Feng, Luo Shijun
11:40-12:00	CONICAL FOREBODY SEPARATION FLOW CONTROLLED BY NANOSECOND-SDBD PLASMA AT 72M/S Wang Jianlei, Li Huaxing, MENG Xuanshi , Zhang Duo, Liu Feng, Luo Shijun
12:00-12:20	EXPERIMENT STUDY OF DISTORTION AND DRAG MODEL OF LAGER DROPLET LIU Sen-yun , Zhu Chun-ling, Wang Qiao and Xiao Jing-ping

12:30-14:00	Lunch
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Computational Fluid Dynamics V, 7 July (Tuesday), Room A	
Chairman: Chunhua Zhou	
14:00-14:30	MULTI OBJECTIVE AERODYNAMIC OPTIMIZATION USING PARALLEL NASH EVOLUTIONARY/DETERMINISTIC HYBRID ALGORITHMS TANG Zhili
14:30-14:50	EFFICIENT CFD/CSD COUPLING METHODS FOR AEROELASTIC APPLICATIONS CHEN Long, Xia Jian
14:50-15:10	CPU/GPU COMPUTING FOR AN IMPLICIT MULTI-BLOCK COMPRESSIBLE NAVIER-STOKES SOLVER ON HETEROGENEOUS PLATFORM DENG Liang, Bai Hanli, Wang Fang, Xu Qingxin
15:10-15:30	NUMERICAL INVESTIGATIONS OF TWO TYPICAL UNSTEADY FLOWS IN TURBOMACHINERY USING THE MULTI-PASSAGE MODEL ZHOU Di, Lu Zhiliang, Guo Tongqing, Shen En'nan
15:30-15:50	GPU IMPLEMENTATION OF PRECONDITIONING METHOD FOR LOW-SPEED FLOWS ZHANG Jiale, Chen Hongquan
15:50-16:10	Tea Break
Computational Fluid Dynamics VI, 7 July (Tuesday), Room A	
Chairman: Zhili Tang	
16:10-16:40	FAST DYNAMIC MESHING METHOD BASED ON DELAUNAY GRAPH AND INVERSE DISTANCE WEIGHTING INTERPOLATION WANG Yibin, Qin Ning, Zhao Ning
16:40-17:00	GPU IMPLEMENTATION OF A VISCOUS FLOW SOLVER ON UNSTRUCTURED GRIDS XU Tianhao, Chen Long
17:00-17:20	SOLUTION RECONSTRUCTION ON TETRAHEDRAL MESHES USING P ¹ CONSERVATIVE INTERPOLATION PENG Biao, Zhou Chunhua
17:20-17:40	NUMERICAL SIMULATION OF PNEUMATIC TUBE'S INNER FLOW DAI Hai-Fa, Tao Jian-Wu, Yu Fei
17:40-18:00	RESIDUAL ICE EFFECT ON AERODYNAMIC PERFORMANCE FOR AIRFOIL ZHAO Huan-yu, Zhu Chun-ling and Dai hao

Application of Fluid Mechanics II, 7 July (Tuesday), Room C	
Chairman: Kim Choon Ng	
14:00-14:30	FUTURE ENERGY BENCHMARK FOR DESALINATION: IS IT BETTER TO HAVE A POWER (ELECTRICITY) PLANT WITH RO OR MED/MSF? Muhammad Wakil SHAHZAD , Kyaw Thu, Kim Choon Ng
14:30-14:50	ELECTRICAL RATING OF CONCENTRATED PHOTOVOLTAIC (CPV) SYSTEMS FOR LONG TERM PERFORMANCE STUDY Muhammad Burhan, Oh Seung Jin, Muhammad Wakil SHAHZAD , Chun Won Gee, Kim Choon Ng
14:50-15:10	AN ADVANCED UNIVERSAL ADSORPTION ISOTHERM MODEL Karan Sabnani, Azhar Bin Ismail, Li Ang, Muhammad Wakil SHAHZAD , Kim Choon Ng
15:10-15:30	A STUDY ON THE PREDICTION OF TOTAL COOLING LOAD OF BUILDINGS IN SINGAPORE Seung Jin OH , Kyaw Thu, Kian Jon Ernest Chua, Kim Choon Ng
15:30-15:50	THE DEVELOPMENT OF TUBULAR PLATINUM-EMITTER REACTOR FOR A SMALL-SCALE THERMOPHOTOVOLTAIC POWER SYSTEM LI Yueh-Heng

15:50-16:10	Tea Break
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Application of Fluid Mechanics III, 7 July (Tuesday), Room C	
Chairman: Yibin Wang	
16:10-16:40	NONLINEAR STRUCTURE AND FLIGHT DYNAMICS ANALYSIS OF VERY FLEXIBLE AIRCRAFT CHEN Zhanjun , Fu Zhichao, Lv Jinan, Liu Ziqiang
16:40-17:00	AERODYNAMIC CHARACTERISTIC OF THE ACTIVE COMPLIANT TRAILING EDGE CONCEPT NIE Rui , Qiu Jinhao, Ji Hongli, Li Dawei
17:00-17:20	THE AERODYNAMIC CHARACTERISTICS AND INFLUENCE OF THE AIRBORNE MAGNETIC GRADIENT MEASUREMENT APPLIED ON A HIGH ASPECT RATIO-UAV IN LOW ALTITUDE YU Yi-Fu , Wang Qiang, Shi Xiao-Tian
17:20-17:40	CALCULATION OF TAKEOFF AND LANDING PERFORMANCE UNDER DIFFERENT COMPLEX ENVIRONMENTS ZHU Yajuan , Wang Jiangfeng
17:40-18:00	CHARACTERIZATION OF SUPERSTRUCTURE ZNO THIN FILM AND ITS COMPOSITE SYNTHESIZED BY SOFT

	CHEMICAL PROCESS ZHAO Zhihuan, FAN Jimin, CHANG Honghong, YIN Shu, Tsugio SATO
18:00-18:20	WAKE NUMERICAL SIMULATION BASED ON THE PARK-GAUSS MODEL AND CONSIDERING ATMOSPHERIC STABILITY YANG Xiangsheng, Zhao Ning, Tian Linlin
18:30-20:30	Banquet

8 July (Wednesday)	
	Panel Discussion
18:30-20:30	Dinner

9 July (Thursday)	
	Conference Visit and Closing Ceremony
18:30-20:30	Dinner