

ILASS-ASIA 2020 Program Overview

Friday (October 23, 2020)					
08:00-18:00	Registration				
Saturday (October 24, 2020)					
Chair: Zhixia He (Jiangsu University, China)					
08:30-09:00	Opening Ceremony				3F Yong He Ballroom
09:00-09:40	Plenary Lecture 1: Wanhua Su (Tianjin University, China)				
09:40-10:00	Group photo & Coffee break				
Chair: Liguang Li (Tongji University, China)					
10:00-10:40	Plenary Lecture 2: Vincent McDonell (University of California, USA)				
10:40-11:20	Plenary Lecture 3: Yasuo Moriyoshi (Chiba University, Japan)				
11:20-12:00	Plenary Lecture 4: Seong Hyuk Lee (Chung-Ang University, South Korea)				
12:00-13:00	Lunch				1F M-café
12:30-14:00	ILASS-Asia Committee Meeting				Kun Peng Room
Room No.	3F Yong He Ballroom	2F Yuan He Ballroom 1	2F Boardroom 1	2F Boardroom 2	2F VIP Room 1
Topic	Droplet 1	Stability & Nanoparticles	Combustion	Aeronautics Spray	Modeling & Simulation1
Chair	Chenglong Tang, Yikai Li	Xinqi Qiao, Zongyu Yue	Haifeng Liu, Tiemin Xuan	Qingfei Fu, Xianyin Leng	Ming Jia, Genmiao Guo
13:30-13:50	ILASSA2020-1-10	ILASSA2020-1-21	ILASSA2020-3-04	ILASSA2020-4-05	ILASSA2020-5-20
13:50-14:10	ILASSA2020-1-09	ILASSA2020-1-11	ILASSA2020-3-03	ILASSA2020-4-09	ILASSA2020-5-15
14:10-14:30	ILASSA2020-1-17	ILASSA2020-2-02	ILASSA2020-3-17	ILASSA2020-4-03	ILASSA2020-5-10
14:30-14:50	ILASSA2020-1-25	ILASSA2020-1-03	ILASSA2020-3-02	ILASSA2020-4-08	ILASSA2020-5-13
14:50-15:10	ILASSA2020-1-24	ILASSA2020-2-17	ILASSA2020-3-25	ILASSA2020-4-02	ILASSA2020-5-18
15:10-15:30	ILASSA2020-1-06	ILASSA2020-3-01	ILASSA2020-3-12	ILASSA2020-4-04	ILASSA2020-5-22
15:30-15:50	ILASSA2020-2-05	ILASSA2020-2-11	ILASSA2020-4-13	ILASSA2020-4-07	ILASSA2020-5-23
15:50-16: 10	Coffee break				
Chair: Junfeng Wang (Jiangsu University, China)					
16:10-16:50	Plenary Lecture 5: Manolis Gavaises (City, University of London, U.K.)				
16:50-17:30	Plenary Lecture 6: Michele Battistoni (University of Perugia, Italy)				
18:00-20:30	Welcome Reception Dinner				2F Yuan He Ballroom
Sunday (October 25, 2020)					
Room No.	2F Yuan He Ballroom 1	2F Yuan He Ballroom 2	2F Boardroom 1	2F Boardroom 2	2F VIP Room 1
Topic	Droplet 2	Spray & Atomization	Gasoline spray	Diesel Spray	Modeling & Simulation2

Chair	Kai Han, Jiangping Tian	Cangsu Xu, Quan Dong	David Hung, Yanfei Li	Wuqiang Long, Liyun Fan	Yusong Yu, Ping Yi
8:30-8:50	ILASSA2020-2-18	ILASSA2020-2-01	ILASSA2020-3-24	ILASSA2020-4-12	ILASSA2020-5-19
8:50-9:10	ILASSA2020-1-12	ILASSA2020-2-15	ILASSA2020-3-23	ILASSA2020-4-15	ILASSA2020-5-16
9:10-9:30	ILASSA2020-2-06	ILASSA2020-1-15	ILASSA2020-3-08	ILASSA2020-4-10	ILASSA2020-5-09
9:30-9:50	ILASSA2020-1-23	ILASSA2020-1-05	ILASSA2020-3-18	ILASSA2020-3-20	ILASSA2020-5-17
9:50-10:10	ILASSA2020-2-07	ILASSA2020-2-23	ILASSA2020-3-11	ILASSA2020-2-14	ILASSA2020-5-14
10:10-10:30	ILASSA2020-2-08	ILASSA2020-1-14	ILASSA2020-3-19	ILASSA2020-4-18	ILASSA2020-5-11
10:30-10:50	Coffee break				
Room No.	2F Yuan He Ballroom 1	2F Yuan He Ballroom 2	2F Boardroom 1	2F Boardroom 2	2F VIP Room 1
Topic	Micro-explosion	Spray & Internal flow	Impingement spray	Diagnostics	Modeling & Simulation³
Chair	Deqing Mei, Zhaowen Wang	Fuqiang Luo, Ziman Wang	Liang Guo, Xuesong Li	Xiaobei Cheng, Xiao Ma	Xingsi Han, Shengli Wei
10:50-11:10	ILASSA2020-1-04	ILASSA2020-2-04	ILASSA2020-3-13	ILASSA2020-4-19	ILASSA2020-5-06
11:10-11:30	ILASSA2020-2-16	ILASSA2020-1-08	ILASSA2020-3-06	ILASSA2020-4-20	ILASSA2020-5-02
11:30-11:50	ILASSA2020-1-26	ILASSA2020-1-16	ILASSA2020-3-14	ILASSA2020-4-16	ILASSA2020-5-01
12:00-13:00	Lunch 1F M-café				
Room No.	2F Yuan He Ballroom 1	2F Yuan He Ballroom 2	2F Boardroom 1	2F Boardroom 2	2F VIP Room 1
Topic	Spray & Internal flow	Spray & Internal flow	Impingement Spray	Supercritical Condition	Modeling & Simulation³
Chair	Deqing Mei, Zhaowen Wang	Fuqiang Luo, Ziman Wang	Liang Guo, Xuesong Li	Xiaobei Cheng, Xiao Ma	Xingsi Han, Shengli Wei
13:30-13:50	ILASSA2020-3-15	ILASSA2020-1-19	ILASSA2020-2-12	ILASSA2020-2-03	ILASSA2020-5-05
13:50-14:10	ILASSA2020-3-05	ILASSA2020-2-20	ILASSA2020-2-09	ILASSA2020-1-13	ILASSA2020-5-03
14:10-14:30	ILASSA2020-2-19	ILASSA2020-2-13	ILASSA2020-2-21	ILASSA2020-4-11	ILASSA2020-5-07
14:30-14:50	Coffee break				
Chair: Min Xu (Shanghai Jiaotong University)					3F Yong He Ballroom
14:50-15:30	Plenary Lecture 7: Yueh-Heng Li (National Cheng Kung University, Chinese Taipei)				
15:30-16:10	Plenary Lecture 8: Jose Maria Garcia-Oliver (Universitat Politècnica de València, Spain)				
16:10-16:50	Plenary Lecture 9: Gautam Kalghatgi (University of Oxford, U.K.)				
16:50-17:30	Plenary Lecture 10: R. V. Ravikrishna (Indian Institute of Science, India)				
17:30-18:00	Best Paper Selection Committee (ILASS-Asia2020) Meeting				Boardroom1
18:30-20:30	Closing Ceremony & Banquet				2F Yuan He Ballroom
Monday (October 26, 2020)					
8:00-17:40	Local Session- ILASS-China (in Chinese)				3F Yong He Ballroom

Monday (October 26, 2020)

Local Session- ILASS-China (in Chinese)

Venue: 3F Yong He Ballroom

8:00-8:20	Opening Ceremony
Chair: Qian Wang (Jiangsu University)	
8:20-8:50	Investigations on spray-wall impingement and combustion processes in the near-wall region of IC engines Mingfa Yao (Tianjin University)
8:50-9:20	Exploration of spray characteristics of fine atomization nozzles Wuqiang Long (Dalian University of Technology)
9:20-9:50	Investigation of liquid atomization processes and mechanisms covering total thermodynamic states Min Xu (Shanghai Jiao Tong University)
9:50-10:20	Progress on research into cleaning technology of automobile washing system Zhijun Wu (Tongji University)
10:20-10:40	Coffee break
Chair: Xinqi Qiao (Shanghai Jiaotong University)	
10:40-11:00	Vortex induced string cavitation in diesel injector nozzles and its effects on spray atomization Zhixia He (Jiangsu University)
11:00-11:20	Study on high premixed combustion (HPCCI) controlled low-temperature combustion in diesel engines Xiaobei Cheng (Huazhong University of Science and Technology)
11:20-11:40	Molecular dynamics simulation on the process of micro-explosion of water-in-diesel emulsion droplets Mingrui Wei (Wuhan University of Technology)
11:40-12:00	Experimental and simulation study on evaporation characteristics of fuel droplet under different ambient conditions Kai Han (Beijing Institute of Technology)
12:00-13:00	Lunch
13:00-14:00	ILASS-China meeting 2F Boardroom 1
Chair: Wei Fan (Northwestern Polytechnical University)	
14:00-14:20	Dynamics of droplet impact on a solid surface and its prospective implication on spray wall modeling Chenglong Tang (Xi'an Jiaotong University)
14:20-14:40	Simulation of the spray and combustion processes of practical/blended fuels with high fidelity Ming Jia (Dalian University of Technology)
14:40-15:00	Research on supercritical transition of spray and droplets with multi-component fuels Xiao Ma (Tsinghua University)
15:00-15:20	Study on atomization characteristics of diesel air-assisted spray Cangsu Xu (Zhejiang University)
15:20-15:40	Study on fuel-wall collision and fluid-solid coupling development process after collision based on surface wettability Liang Guo (Jilin University)
15:40-16:00	Coffee break
Chair: Fei Qi (Shanghai Jiaotong University)	
16:00-16:20	Key technology investigation of high common rail fuel injection system Liyun Fan (Harbin Engineering University)
16:20-16:40	Studies on liquid propellant atomization mechanism and injector dynamics Qingfei Fu (Beihang University)
16:40-17:00	Characteristics and mechanisms of liquid fuel atomization under ultra-high injection pressure conditions Yusong Yu (Beijing Jiaotong University)
17:00-17:20	Numerical study on basic atomization processes in aero-engine combustor Qun Zhang (Northwestern Polytechnical University)
17:20-17:40	Self-adaptive turbulence eddy simulation of turbulent spray flame Xingsi Han (Nanjing University of Aeronautics and Astronautics)
18:00-20:30	Buffet

ILASS-ASIA 2020 Detailed PROGRAM

Saturday, 24/October/2020

08:30-09:00	<p>Opening Ceremony Opening Remarks: -Shouqi Yuan (Jiangsu University, China) Chair of the University Council, Honorary Chair of ILASS-Asia2020 -Vincent McDonell (University of California, USA) President, ILASS-International -Youngbin Yoon (Seoul National University, Korea) President, ILASS-Asia -Liguang Li (Tongji University, China) Vice President, ILASS-Asia, Co-Chair of ILASS-Asia2020</p>	<p>Chair: Zhixia He Venue: 3F Yong He Ballroom</p>
09:00-09:40	<p>Plenary Lecture 1 <i>What's the fuel spray like for clean and high efficiency combustion?</i> Wanhua Su, Tianjin University, China</p>	
09:40-10:00	Group photo & Coffee break	
10:00-10:40	<p>Plenary Lecture 2 <i>Perspectives Based on "Grand Challenge" Studies of Liquid Jet in Crossflow</i> Vincent McDonell, University of California, USA</p>	<p>Chair: Liguang Li Venue: 3F Yong He Ballroom</p>
10:40-11:20	<p>Plenary Lecture 3 <i>Effect of lubricant oil on combustion and gas emissions in gasoline IC engines</i> Yasuo Moriyoshi, Chiba University, Japan</p>	
11:20-12:00	<p>Plenary Lecture 4 <i>Surface plasmon resonance imaging of evaporating thin film in the contact line region of a sessile droplet</i> Seong Hyuk Lee, Chung-Ang University, South Korea</p>	
12:00-13:00	Lunch	
12:30-14:00	ILASS-Asia Committee Meeting	
<p>13:30-15:50 Session: Droplet 1 Chair: Chenglong Tang, Yikai Li</p>		Venue: 3F Yong He Ballroom
13:30-13:50	<p>Paper: ILASSA2020-1-10 Numerical investigation on the droplet and liquid film distribution in spray cooling with dynamic load Xiaoyi Niu, Yu Wang, Jianjie Cheng, Jun Bao, Xinjie Xu (Nanjing Technology University)</p>	
13:50-14:10	<p>Paper: ILASSA2020-1-09 Characterization of droplet clusters and voids in an evaporating spray Nandhakumar P, Srikrishna Sahu (Indian Institute of Technology)</p>	
14:10-14:30	<p>Paper: ILASSA2020-1-17 Investigation on formation mechanism of main droplets and elimination method of satellite droplets in jet process Runze Duan, Heng Zhang, Hongbin Duan, Ruolin Zhao, Liansheng Liu (Hebei University of Technology)</p>	
14:30-14:50	<p>Paper: ILASSA2020-1-25 Study on three droplet sequential burning characteristics of coal direct liquefaction diesel Wang Tengfei, Qiao Xinqi, Li Tie, Wang Jigang, Wei Yijie (Shanghai Jiao Tong University)</p>	
14:50-15:10	<p>Paper: ILASSA2020-1-24 Numerical study of single iron (III) Nitrate Nonahydrate/Ethanol droplet evaporation in dry air P. Narasu, A. Keller, M. Kohns, H. Hasse, and E. Gutheil (Universität Heidelberg)</p>	
15:10-15:30	<p>Paper: ILASSA2020-1-06 Flame spread and combustion characteristics of jatropha oil droplets array Jigang Wang, Hucheng Zhang, Xinqi Qiao (Shanghai Jiao Tong University)</p>	

15:30-15:50	<p>Paper: ILASSA2020-2-05</p> <p>Combustion beha+C108:J108vior of Jet-A1 single droplets and its blends with Hydroprocessed Vegetable Oil in a drop tube furnace</p> <p>G. Pacheco, A. Silva, M. Costa (Universidade da Beira Interior)</p>
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13:30-15:50	Venue: 2F Yuan He Ballroom 1
Session: Stability & Nanoparticles	
Chair: Xinqi Qiao, Zongyu Yue	

13:30-13:50	<p>Paper: ILASSA2020-1-21</p> <p>Temporal instability of double-layer viscoelastic liquid sheets in the presence of unrelaxed tension</p> <p>Muwei Yao, Qingfei Fu, Lijun Yang (Beihang University)</p>
13:50-14:10	<p>Paper: ILASSA2020-1-11</p> <p>Instability and coupling of coaxial jets in co-flow focusing</p> <p>Kai Mu, Ting Si, Hang Ding (University of Science and Technology of China)</p>
14:10-14:30	<p>Paper: ILASSA2020-2-02</p> <p>Linear stability analysis of a variable diameter liquid jet</p> <p>Hu Sun, Qingfei Fu, Lijun Yang (Beihang University)</p>
14:30-14:50	<p>Paper: ILASSA2020-1-03</p> <p>Analysis of surface tension of fuel with disparate types of nanoparticles</p> <p>Yu Fang, Dongmei Guo, Zhiyu Chen, Deqing Mei, Chao Sun (Jiangsu University)</p>
14:50-15:10	<p>Paper: ILASSA2020-2-17</p> <p>Effect of aluminum nanoparticles size on the combustion characteristics of nanofluid fuel</p> <p>Shuai Zhou, Wen Ao, Yi Gao, Qilong Yan, Xiang Lv, Peijin Liu, Shaohua Zhu (Northwestern Polytechnical University)</p>
15:10-15:30	<p>Paper: ILASSA2020-3-01</p> <p>Study on spray characteristics of fuel with cerium oxide nanoparticles</p> <p>Yu Fang, Weiyi Cai, Xiaodong Zhao, Deqing Mei (Jiangsu university)</p>
15:30-15:50	<p>Paper: ILASSA2020-2-11</p> <p>Single droplet combustion of aluminum nanoparticles added to a biofuel</p> <p>I. Ferrão, A. Silva, A. S. Moita, M. Mendes, M. Costa (Universidade da Beira Interior)</p>

13:30-15:50	Venue: 2F Boardroom 1
Session: Combustion	
Chair: Haifeng Liu, Tiemin Xuan	

13:30-13:50	<p>Paper: ILASSA2020-3-04</p> <p>Optical study of diesel spray and combustion processes by means of rapid compression and expansion machine-observation from lateral side of 2-D piston cavity</p> <p>Chengyuan FAN, Daoyuan WANG, Keiya NISHIDA, Yoichi OGATA (Hiroshima University)</p>
13:50-14:10	<p>Paper: ILASSA2020-3-03</p> <p>Significant impact of flash boiling spray on the atomization and in-cylinder soot characteristics in an optical engine using laser scattering techniques</p> <p>Zhe Suna, Mohamed Noura,b, Xuesong Lia, David Hunga,c, Min Xu (Shanghai Jiao Tong University)</p>
14:10-14:30	<p>Paper: ILASSA2020-3-17</p> <p>Visualization study of spray atomization, evaporation and combustion characteristics of kerosene RP-3, diesel and RP-3/diesel blends</p> <p>Zhaowen Wang, Bing Lang, Tao Du, Sheng Huang, Can Yang, Xiaobei Cheng (Huazhong University of Science and Technology)</p>
14:30-14:50	<p>Paper: ILASSA2020-3-02</p> <p>Numerical investigation of the effect of split injection strategies and conical spray on the mixture formation and combustion of gasoline direct injection engine</p> <p>Zhiqing Yu, Shengli Wei, Zhilei Song, Fan Yang, Chengcheng Wu (Jiangsu University)</p>

14:50-15:10	Paper: ILASSA2020-3-25 The spray, combustion, and emission characteristics of tri-propylene glycol methyl ether (TPGME) in a diesel engine Shiliang Wu, Jiajing Bao, Ziwei Wang, Wenjun Zhong, Zhixia He, Qian Wang, Rui Xiao (Southeast University)
15:10-15:30	Paper: ILASSA2020-3-12 Multidimensional CFD simulation of PAH formation process in diesel spray combustion Nobuyuki Kawahara, Hirotomo Daido, Eiji Tomita (Okayama University)
15:30-15:50	Paper: ILASSA2020-4-13 Effect of engine speed on RCCI combustion of gasoline/hydrocatalytic biodiesel Li Yulan, Wang Qian, Kang Jiaming, Xiang Yingjie (Jiangsu University)

13:30-15:50	Venue: 2F Boardroom 2
Session: Aeronautics Spray	
Chair: Qingfei Fu, Xianyin Leng	

13:30-13:50	Paper: ILASSA2020-4-05 Study on pulse working characteristics of swirl injectors Dingwei Zhang, Qingfei Fu, Lijun Yang (Beihang University)
13:50-14:10	Paper: ILASSA2020-4-09 Liquid film breakup in a spray of a gas-liquid swirl coaxial injector JEONG Gijeong, LEE Ingyu, PARK Yeon-Kyu, YOON Youngbin (Seoul National University)
14:10-14:30	Paper: ILASSA2020-4-03 Effect of mass flow rate ratio on the spray characteristics of a dual-orifice pressure swirl atomizer Weijia Qian, Jing Zhang, Yijiang Dong, Zixin Chi, Xin Hui2, Yuzhen Lin (Beihang University)
14:30-14:50	Paper: ILASSA2020-4-08 Numerical study on atomization characteristics of primary breakup of a pre-filming air-blast atomizer Ping Zhang, Changshen He, Yingwen Yan (Nanjing University of Aeronautics and Astronautics)
14:50-15:10	Paper: ILASSA2020-4-02 Airworthiness compliance verification of the icing cloud flow field in CARDC icing wind tunnel Guo Xiangdong, Wang Zixu, Guo Long, Yi Xian (China Aerodynamics Research and Development Center)
15:10-15:30	Paper: ILASSA2020-4-04 A compact simulation method for air-assist sprays including primary atomization Lee T.-W., Greenlee B., Park J.E., Bellerova H., Raudensky (Arizona State University)
15:30-15:50	Paper: ILASSA2020-4-07 Liquid mass distribution with breakup instability in a gas-centered swirl coaxial injector Hyeontaek JO, Gijeong JEONG, Jinhyun BAE, Youngbin YOON (Seoul National University)

13:30-15:50	Venue: 2F VIP Room 1
Session: Modeling & Simulation1	
Chair: Ming Jia, Genmiao Guo	

13:30-13:50	Paper: ILASSA2020-5-20 Study on flow characteristics inside the joint between the high-pressure pump piston chamber and high-pressure pipe Tao Qiu, Peng Zhao, Yan Lei, Xianwu Liu, Guangyu Peng, Fan (Beijing University of Technology)
13:50-14:10	Paper: ILASSA2020-5-15 Analysis of the mixing process of high-pressure direct injection natural gas jet based on 3D-CFD simulation Qian Xiong, Lujiang Wang, Dezhi Liang, Yue Wu, Long Liu (Harbin Engineering University)
14:10-14:30	Paper: ILASSA2020-5-10 Application of a coupled eulerian spray approach and a flamelet-based combustion model to single hole primary reference fuel sprays José M. Desantes, José M. García-Oliver, Ricardo Novella, José M. Pastor, Weiwei Shang, Chafik Bensalem, Dario López-Pintor (Universitat Politècnica de València, Jiangsu University)
14:30-15:50	Paper: ILASSA2020-5-13

15:50-15:10	Impact of atomization process on the morphology of a gasoline direct injection jet (ECN Spray G2) using large eddy simulation including in-nozzle flow and phase change Yongxiang Li, Florian Ries, Kaushal Nishad, Amsini Sadiki (Technische Universität Darmstadt) Paper: ILASSA2020-5-18	
15:10-15:30	Assessment of LES dispersion models for highly dispersed spray jet Lorenzo Angelilli, Pietro Paolo Ciottoli, Francisco Hernández Pérez, Riccardo Malpica Galassi, Mauro Valorani, Hong G. Im (King Abdullah University of Science and Technology) Paper: ILASSA2020-5-22	
15:30-15:50	Numerical modeling of AdBlue film formation and flow-heat transfer dynamics in SCR-DeNOx system using LES Kaushal Nishad, Nikhil Mutalik, Florian Ries, Yongxiang Li, Federica Ferraro, Amsini Sadiki (Technische Universität Darmstadt) Paper: ILASSA2020-5-23	
15:50-16:10	Coffee break	
16:10-16:50	Plenary Lecture 5: <i>Nozzle flow and sprays under extreme fuel pressurisation</i> Manolis Gavaises, City, University of London, U.K.	Chair: Junfeng Wang Venue: 3F Yong He Ballroom
16:50-17:30	Plenary Lecture 6: <i>Modelling dense and dilute two-phase flows</i> Michele Battistoni, University of Perugia, Italy	
18:00-20:30	Welcome Reception Dinner	
Sunday, 25/October/2020		
08:30-10:30	Venue: 2F Yuan He Ballroom 1	
Session: Droplet 2		
Chair: Kai Han, Jiangping Tian		
08:30-08:50	Paper: ILASSA2020-2-18 Effects of initial airflow velocity and droplet diameter on the secondary breakup of a droplet at moderate Weber number Wanli Zhu, Ningbo Zhao, Xiongbin Jia, Chengwen Sun and Hongtao Zheng (Harbin Engineering University)	
08:50-09:10	Paper: ILASSA2020-1-12 Study on the appearance of cool flame in flame spread over fuel droplets at high pressure in microgravity Yuto CHIKAMI, Kodai MATSUMOTO, Takehiko SEO, Masato MIKAMI (Yamaguchi University)	
09:10-09:30	Paper: ILASSA2020-2-06 Numerical simulation of droplet spreading at small Weber numbers Zhenyu Zhang, Chenwei Zhang, Peng Zhang (Beijing Institute of Technology)	
09:30-09:50	Paper: ILASSA2020-1-23 Effect of fuel physical properties on the droplet size distribution function using a pressure swirl spray Reza Alidoost Dafsari, Shahnaz Rezaee, Foad Vashahi, Jeekeun Lee (Chonbuk National University)	
09:50-10:10	Paper: ILASSA2020-2-07 A computational study of spinning effects on bouncing and coalescence of head-on colliding droplets Chengming He, Peng Zhang (The Hong Kong Polytechnic University)	
10:10-10:30	Paper: ILASSA2020-2-08 Characteristics of respiratory droplets in ventilated makeshift isolation enclosures S Harikrishnan, Manish M (Indian Institute of Technology Madras)	
08:30-10:30	Venue: 2F Yuan He Ballroom 2	
Session: Spray & Atomization		
Chair: Cangsu Xu, Quan Dong		
08:30-8:50	Paper: ILASSA2020-2-01	

<p>08:50-09:10</p> <p>09:10-09:30</p> <p>09:30-09:50</p> <p>09:50-10:10</p> <p>10:10-10:30</p>	<p>Budget of viscoelastic planar liquid sheets in the presence of gas velocity oscillations Boqi Jia, Luo Xie, Lijun Yang, Qingfei Fu, Xiao Cui (Beihang University)</p> <p>Paper: ILASSA2020-2-15</p> <p>Three-dimensional simulation of ligament formation caused by Rayleigh-Taylor instability Mei Zhang, Yikai Li, Kun Wu (Beijing Institute of Technology)</p> <p>Paper: ILASSA2020-1-15</p> <p>Effect of orifice size on liquid breakup dynamics and spray characteristics in slinger atomizers Arnab Chakraborty, Mithun Das, Srikrishna Sahu, Dalton Mourya (IIT Madras)</p> <p>Paper: ILASSA2020-1-05</p> <p>Investigation of atomization performance on a centrifugal fuel slinger with phase Doppler anemometer Xue Zhiliang, Li Feng, Zhu Youqi, Jiang Zhi, Zhou Yonggang, Wu Xuecheng (ZheJiang University)</p> <p>Paper: ILASSA2020-2-23</p> <p>Jet characteristics in electrohydrodynamic spray: From single cone jet to multiple jets Cong Zhang, Yuanping Huo, Junfeng Wang (Jiangsu University)</p> <p>Paper: ILASSA2020-1-14</p> <p>Measurements of liquid volume fraction in a range of atomizing sprays Gajendra Singh, Agisilaos Kourmatzis, Assaad R. Masri (The University of Sydney)</p>
<p>08:30-10:30</p> <p>Session: Gasoline spray</p> <p>Chair: David Hung, Yanfei Li</p>	<p style="text-align: right;">Venue: 2F Boardroom 1</p>
<p>08:30-08:50</p> <p>08:50-09:10</p> <p>09:10-09:30</p> <p>09:30-09:50</p> <p>09:50-10:10</p> <p>10:10-10:30</p>	<p>Paper: ILASSA2020-3-24</p> <p>An understanding on the non-collapse feature of multi-jet sprays under ambient-pressure flash-boiling conditions Changhui Wang, Yanfei Li, Jingyu Zhang, Shijin Shuai (Tsinghua University)</p> <p>Paper: ILASSA2020-3-23</p> <p>Spray atomization characteristics under flash boiling injection and different split injection strategies in an optical GDI engine Hongyu Wang, Zhe Sun, Xuesong Li, Min Xu (Shanghai Jiao Tong University)</p> <p>Paper: ILASSA2020-3-08</p> <p>Numerical investigation of flash boiling internal nozzle flow for ethanol direct injection Wenpi Li, Zhehao Zhang, Jun Deng, Liguang Li, Zhijun Wu (Tongji University)</p> <p>Paper: ILASSA2020-3-18</p> <p>Experimental study on surrounding air movement induced by transient spray plume under sub-cooled and flash-boiling conditions Qiaozhi Zhai, David L.S. Hung, Xuesong Li, Min Xu (Shanghai Jiao Tong University)</p> <p>Paper: ILASSA2020-3-11</p> <p>Quantitative evaluation of liquid film formation process from DISI injector using LIF method Yasutaka TOMOMATSU, Nobuyuki KAWAHARA, Eiji TOMITA (Okayama University)</p> <p>Paper: ILASSA2020-3-19</p> <p>Mechanism and characteristics of secondary flash boiling sprays on phase boundaries under various test conditions Shangning Wang, Shangze Yang, Xuesong Li, David L.S. Hung, Min Xu (Shanghai Jiao Tong University)</p>
<p>08:30-10:30</p> <p>Session: Diesel Spray</p> <p>Chair: Wuqiang Long, Liyun Fan</p>	<p style="text-align: right;">Venue: 2F Boardroom 2</p>
<p>08:30-08:50</p> <p>08:50-09:10</p>	<p>Paper: ILASSA2020-4-12</p> <p>Effect of diesel post-injection strategy on the improvement of combustion and emission performance in diesel-ethanol RCCI combustion Seongin Jo, Suhan Park (Chonnam National University)</p> <p>Paper: ILASSA2020-4-15</p> <p>Experimental studies on the effects of injection pressure on the ignition and combustion characteristics of diesel</p>

09:10-09:30	<p>spray under cold-start conditions Haiyan Chen, Fushui Liu, Yikai Li, Yue Wu (Beijing Institute of Technology)</p> <p>Paper: ILASSA2020-4-10: A computational study of gasoline/diesel direct dual fuel stratification (DDFS) engine at low loads Yizi Zhu, Yanzhi Zhang, Zhixia He (Jiangsu University)</p>
09:30-09:50	<p>Paper: ILASSA2020-3-20 Research on diesel macroscopic spray characteristics under air-assisted direct injection Wenhua Zhou, Rui Yang, Cangsu Xu, Jianjun Bao (Zhejiang University)</p>
09:50-10:10	<p>Paper: ILASSA2020-2-14 Transient flow characteristics within a diesel injector using a compressible density-based solver Chuqiao Wang, Andreas Roell, Konstantinos Kolovos, Alvaro Vidal Roncero, Yu Sun, Phoivos Koukouvinis, Manolis Gavaises, Markus Brautsch, Raphael Lechner, Nick O'Connell, Zhixia He, Fuqiang Luo (Jiangsu University)</p>
10:10-10:30	<p>Paper: ILASSA2020-4-18 Algorithm of high pressure common rail diesel engine injection rate based on the injector inlet pressure Xiyu Yang, Quan Dong, Hao Ni, Jingdong Song (Harbin Engineering University)</p>
08:30-10:30	Venue: 2F VIP Room 1
Session: Modeling & Simulation2	
Chair: Yusong Yu, Ping Yi	
08:30-08:50	<p>Paper: ILASSA2020-5-19 Machine learning approaches for computational fluid dynamics of supercritical fluid flows Petro Junior Milan, Xingjian Wang, Yixing Li, Vigor Yang (Georgia Institute of Technology)</p>
08:50-09:10	<p>Paper: ILASSA2020-5-16 Comparison of the cavitation flow inside the elliptical diesel nozzle and the corresponding effects on the jet breakup Liang Zhang, Zhixia He, Wei Guan, Qian Wang (Jiangsu University)</p>
09:10-09:30	<p>Paper: ILASSA2020-5-09 Self-Adaptive Turbulence Eddy Simulation of liquid-jet breakup in transverse flow using VOF-DPM coupling method Ziwei Huang, Xingsi Han, Junkui Mao (Nanjing University of Aeronautics and Astronautics)</p>
09:30-09:50	<p>Paper: ILASSA2020-5-17 Numerical investigation of auxiliary air on the primary breakup of dual-layer liquid sheets Lixin Shen, Fei Xing, Su Hao, La Qin, Shining Chan (Xiamen University)</p>
09:50-10:10	<p>Paper: ILASSA2020-5-14 Simulation of high-pressure methane gas jet and mixing process using a phenomenological model Qian Xiong¹, Dezhi Liang, Lujiang Wang, Qihao Mei, Long Liu (Harbin Engineering University)</p>
10:10-10:30	<p>Paper: ILASSA2020-5-11 Numerical investigation of the spray sweeping mechanism of an internal impinging nozzle Zhijun WU, Pengfei LENG, Yu GAO, Zongjie HU, Wenbo ZHAO, Yufeng WANG, Liguang LI (Tongji University)</p>
10:30-10:50	Coffee break
10:50-11:50	Venue: 2F Yuan He Ballroom 1
Session: Micro-explosion	
Chair: Deqing Mei, Zhaowen Wang	
10:50-11:10	<p>Paper: ILASSA2020-1-04 Evaporation and micro-explosion of bio-oxygenated fuel droplet Lintao Wang, Hucheng Zhang, Zhimin Lin, Jigang Wang, Xinqi Qiao (Shanghai Jiao Tong University)</p>
11:10-11:30	<p>Paper: ILASSA2020-2-16 Numerical simulation of emulsified fuel droplet micro-explosion process under high pressure Zhengda Qi, Kai Han, Zhaojing Ni (Beijing Institute of Technology)</p>
11:30-11:50	<p>Paper: ILASSA2020-1-26</p>

Experimental study on micro-explosion characteristics of blended Dimethyl Carbonate and diesel droplets
Shicai Ding, Hucheng Zhang, Ruitian He, Xinqi Qiao (Shanghai Jiao Tong University)

10:50-11:50

Venue: 2F Yuan He Ballroom 2

Session: Spray & Internal flow

Chair: Fuqiang Luo, Ziman Wang

10:50-11:10

Paper: ILASSA2020-2-04
Receptivity of a cylindrical liquid jet
Qiyu Liu, Qingfei Fu, Lijun Yang (Beihang University)

11:10-11:30

Paper: ILASSA2020-1-08
Formation and development of internal bubbles and its controlling strategies
Shangze Yang, Shangning Wang, Xuesong Li, David L.S. Hung, Min Xu (Shanghai Jiao Tong University)

11:30-11:50

Paper: ILASSA2020-1-16
Effect of bubble cutting on internal flow and spray characteristics of the effervescent atomization
Jun Xie, Junlei Zhao, Runze Duan, Cong Du, Yue Wang, Liansheng Liu, Haiyang Zhang (Hebei University of Technology)

10:50-11:50

Venue: 2F Boardroom 1

Session: Impingement spray

Chair: Guo Liang, Xuesong Li

10:50-11:10

Paper: ILASSA2020-3-13
Microscopic observation of droplets cloud impinging on flat wall: Experimental research using spray slicer
Feixiang Chang, Hongliang Luo, Cheng Zhan, Keiya Nishida, Youichi Ogata (Hiroshima University)

11:10-11:30

Paper: ILASSA2020-3-06
Experimental investigation on the microscopic characteristics of impinging spray: Comparison with free spray under different injection pressures
Cheng Zhan, Chenglong Tang, Hongliang Luo, Feixiang Chang, Zuohua Huang, Keiya Nishida, Youichi Ogata (Xi'an Jiaotong University)

11:30-11:50

Paper: ILASSA2020-3-14
Evaporation and condensation of flash boiling sprays impinging on a cold surface
Di Xiao, Shuyi Qiu, David Hung, Xuesong Li, Nishida Keiya, Min Xu (Shanghai Jiao Tong University)

10:50-11:50

Venue: 2F Boardroom 2

Session: Diagnostics

Chair: Xiaobei Cheng, Xiao Ma

10:50-11:10

Paper: ILASSA2020-4-19
Preliminary research on measuring method for supercooled large droplet size of icing wind tunnel
Yuanyuan Chen, Xiangdong Guo, Zixu Wang, Senyun Liu (China Aerodynamics Research and Development Center)

11:10-11:30

Paper: ILASSA2020-4-20
Spray 2D projection density distribution measurements based on synchrotron radiation x-ray high speed radiograph imaging
Li Zhilong, Huo Ran, Wu Yonghong, Dong Guangyu, Wu Zhijun (Tongji University)

11:30-11:50

Paper: ILASSA2020-4-16
A novel planer measurement technique for droplet-flame interaction studies
Thirumalaikumar S K, NandhaKumar P, Abhijeet Kumar, Srikrishna Sahu (Indian Institute of Technology)

10:50-11:50

Venue: 2F VIP Room 1

Session: Modeling & Simulation3

Chair: Xingsi Han, Shengli Wei

10:50-11:10

Paper: ILASSA2020-5-06
Simulation on Cryogen spray cooling in laser treatment of Ota's Nevus: Comparison and optimization of R134a, R404A and R32

11:10-11:30	Jiameng Tian, Junfeng Wang, Zhifu Zhou, Bin Chen (Jiangsu University) Paper: ILASSA2020-5-02 Numerical simulation of combined skin cooling for the 755-nm Alexandrite laser treatment of Ota's Nevus
11:30-11:50	Chen Bin, Zhang Shujian, Wang Jiafeng, Li Dong (Xi'an Jiongtong University) Paper: ILASSA2020-5-01 An electric-field-based model for the simulation of particle capture by a charged droplet group Lin Wang, Ziwen Zuo, Junfeng Wang (Jiangsu University)
12:00-13:00	Lunch
13:30-14:30	Venue: 2F Yuan He Ballroom 1 Session: Multi-Hole Sprays & Internal flow Chair: Deqing Mei, Zhaowen Wang
13:30-13:50	Paper: ILASSA2020-3-15 Experimental study on fuel spray characteristics of multi-hole injector for DISI engine under cross-flow conditions Gengxin ZHANG, Hongliang LUO, Kouhei KITA, Kouga NISHI, Yoichi OGATA, Keiya NISHIDA (Hiroshima University)
13:50-14:10	Paper: ILASSA2020-3-05 The influence of needle eccentric movement on hole-to-hole injection characteristics of a two-layered 8-hole diesel injector Fuqiang Luo, Tianyu Jin, Yu Sun, Chuqiao Wang, Xiwen Wu (Jiangsu University)
14:10-14:30	Paper: ILASSA2020-2-19 Experimental study on the internal flow of gasoline/hydrogenated catalytic biodiesel in the injector nozzle aimed for GCI engines Wenjun Zhong, Qifei Yuan, Qilong Xiang, Zhixia He, Han Zhou, Feibing Yan, Qian wang (Jiangsu University)
13:30-14:30	Venue: 2F Yuan He Ballroom 2 Session: Spray & Internal flow Chair: Fuqiang Luo, Ziman Wang
13:30-13:50	Paper: ILASSA2020-1-19 Parameter optimization of multi-pulsed spraying cooling for laser lipolysis Hui Xin, Bin Chen, Zhifu Zhou (Xi'an Jiongtong University)
13:50-14:10	Paper: ILASSA2020-2-20 Influence research of multi frequency coupling fluctuation of pressure on flow and cavitation characteristics in nozzle Yunpeng Wei, Liyun Fan, Hongwei Lu, Xianyin Leng (Harbin Engineering University)
14:10-14:30	Paper: ILASSA2020-2-13 Four dimensional cavitation flow in multi-hole fuel injector and spray behavior Katsuhisa NAKAMICHI, Masashi WAKISAKA, Kazushi KIMURA, Akira SOU, Takashi MIWA, Keiya NISHIDA, Yoshitaka WADA, Yoshiharu UEKI, Hideaki YOKOHATA (Kobe University)
13:30-14:30	Venue: 2F Boardroom 1 Session: Impingement Spray Chair: Liang Guo, Xuesong Li
13:30-13:50	Paper: ILASSA2020-2-12 Experimental study of the miscibility effect on liquid drop impacting onto very thin films Yu Wu, Qian Wang, C.Y. Zhao (Shanghai Jiao Tong University)
13:50-14:10	Paper: ILASSA2020-2-09 Oil drainage efficiency considering entrainment when oil-gas mixture impingement on the vertical wall which has different surface roughness Lingzi Wang, Jianmei Feng, Kaili Shi, Tiendat Dang, Xueyuan Peng (Xi'an Jiongtong University)
14:10-14:30	Paper: ILASSA2020-2-21 Effects of forced perturbation on the atomization characteristics of impinging liquid jets

Jianan Li1, Fanpei Lei, Lixin Zhou (Xi'an Aerospace Propulsion Institute)	
13:30-14:30	Venue: 2F Boardroom 2
Session: Supercritical Condition	
Chair: Xiaobei Cheng, Xiao Ma	
13:30-13:50	Paper: ILASSA2020-2-03 A molecular dynamics simulation of n-Alkane and Alcohol mixture under subcritical and supercritical conditions Ruitian HE, Ping YI, Tie LI (Shanghai Jiao Tong University)
13:50-14:10	Paper: ILASSA2020-1-13 Supercritical thermophysical properties predictions of multi-component hydrocarbon fuels based on artificial neural network models Ming Zhenyang, Liu Haifeng, Wang Qianlong, Yue Zongyu, Yao Mingfa (Tianjin University)
14:10-14:30	Paper: ILASSA2020-4-11 Assessment of cubic equations of state for ICE fuels under trans/supercritical spray conditions Hongyan Zhu, Zongyu Yue, Jianan Wei, Hu Wang, Haifeng Liu, Mingfa Yao (Tianjin University)
13:30-14:30	Venue: 2F VIP Room 1
Session: Modeling & Simulation3	
Chair: Xingsi Han, Shengli Wei	
13:30-13:50	Paper: ILASSA2020-5-05 Direct numerical simulation of turbulent spray autoignition of n-heptane/air under high initial air temperature Yuyang Wu, Taohong Ye, Taotao Zhou, Minming Zhu (University of Science and Technology of China)
13:50-14:10	Paper: ILASSA2020-5-03 Self-adaptive turbulence eddy simulation of a turbulent spray flame using flamelet method Ziwei Huang, Xingsi Han, Junkui Mao (Nanjing University of Aeronautics and Astronautics)
14:10-14:30	Paper: ILASSA2020-5-07 A numerical investigation of planar spray flames propagation with forced ignition Wei Wei, Minming Zhu, Taohong Ye (University of Science and Technology of China)
14:30-14:50	Coffee break
14:50-15:30	Plenary Lecture 7: <i>Synergetic combustion behavior of aluminum and coal addition in hybrid iron-methane-air premixed flames</i> Yueh-Heng Li, National Cheng Kung University, Chinese Taipei
15:30-16:10	Plenary Lecture 8: <i>1D Spray modelling on the verge of the HPC era</i> Jose Maria Garcia-Oliver, Universitat Politècnica de València, Spain
16:10-16:50	Plenary Lecture 9: <i>We must continue to work on improving internal combustion engines</i> Gautam Kalghatgi, University of Oxford, U.K.
16:50-17:30	Plenary Lecture 10: <i>Liquid Jet in Swirling Crossflow</i> R. V. Ravikrishna, Indian Institute of Science, India
17:30-18:00	Best Paper Selection Committee (ILASS-Asia2020) Meeting
18:30-20:30	Closing Ceremony & Banquet
	2F Boardroom1
	2F Yuan He Ballroom
	Chair Min Xu Venue: 3F Yong He Ballroom

Poster session

Paper: ILASSA2020-5-08	<i>Improvement of cavitation mass transfer model for vortex-induced cavitation in diesel injector nozzles</i> Wei Guan, Zhixia He, Liang Zhang (Jiangsu University)
Paper: ILASSA2020-5-12	<i>Simulation of spray feature based on support vector regression machine</i> Min Guo, Jincheng Sheng, Chaoqun Wu, Hui Liu, Qingrong Fan (Wuhan University of Technology)
Paper: ILASSA2020-3-10	<i>Measurement and analysis of internal momentum field distribution characteristics of diesel fuel spray</i> Hongyu Xu, Tong Zhang, Deyu Wang, Xiyu Yang, Quan Dong (Harbin Engineering University)
Paper: ILASSA2020-4-06	<i>Experimental study on self-pulsation characteristics of an Opened Gas-Liquid Swirl Coaxial Injector</i> Liu Qian, Ding Zhaobo, Li Qinglian, Sun Jiguo (Beijing Aerospace Propulsion Institute)
Paper: ILASSA2020-4-14	<i>Effect of engine compression ratio, injection timing, and exhaust gas recirculation on gaseous and particle number emissions in a light duty diesel engine</i> Khawar MOHIUDDIN and Sungwook PARK (Graduate School of Hanyang University)
Paper: ILASSA2020-1-18	<i>Study on the formation mechanism of viscous droplet in the jet</i> Yang Hua, Wang Lei, and Duan Run-ze (Hebei University of Technology)
Paper: ILASSA2020-3-09	<i>Spray evaporation characteristics of 5-hole GDI injector under flash boiling conditions</i> Mengzhao Chang, and Suhan Park (Graduate School of Chonnam National University)
Paper: ILASSA2020-1-22	<i>Linear stability analysis of liquid jet exposed to subsonic crossflow with surfactant</i> Luhao Liu, Qingfei Fu, Lijun Yang (Beihang University)
Paper: ILASSA2020-2-22	<i>Energy and Momentum Loss approaches to modeling a round turbulent atomized liquid jet</i> Fermin Franco Medrano, Oscar Valdes-Martinez, Yasuhide Fukumoto (Autonomous University of Baja California)
Paper: ILASSA2020-4-17	<i>Atomization performance of gel-liquid unlike impingement by shape descriptor analysis of spray</i> Dias, G.S., Machado, D.A., Andrade, J.C., Fischer, G.A.A., Costa, F.S. (National Institute for Space Research–INPE)
Paper: ILASSA2020-3-21	<i>Evaporation of fuel film formed by an impinging DGI spray on a hot wall characterized with surface roughness and thermal conductivity</i> Yutaro KASUYA, Yoshihiro KOBAYASHI, Masataka ARAI (Tokyo Denki University)
Paper: ILASSA2020-3-22	<i>In-cylinder study on split injection strategies in a DISI optical engine fueled with gasoline</i> Mingli Cui, Zhe Sun, Xuesong Li, David Hung Min Xu (Shanghai Jiao Tong University)
Paper: ILASSA2020-3-07	<i>Macroscopic image and dynamic heat transfer of 2-methylfuran transient spray impinging on wall surface</i> Lin Liang, Lu Zhang, Bing Liu, Zhifu Zhou, Bin Chen (Xi'an Jiaotong University)
Paper: ILASSA2020-1-02	<i>Droplet statistical characteristics and gas-liquid interaction within droplet-laden flow of air-assisted spray</i> Hao Wu, Fujun Zhang, Zhenyu Zhang (Beijing Institute of Technology)
Paper: ILASSA2020-4-21	<i>Drift and rebound potential of droplets issuing from agricultural air induction nozzle</i> A Reza Alidoost Dafsari, Seunghwa Yu, Young Choi, Jeekeun Lee (Chonbuk National University)
Paper: ILASSA2020-2-10	<i>The effect of temperature and mixture to cavitation and spray in injector</i> Zhixia He, Jianquan Wang, Han Zhou (Jiangsu University)
Paper: ILASSA2020-5-04	<i>Analysis of flow characteristics inside flow blurring atomizer under different air to liquid mass ratios using LES/VOF method</i> Jinghe Lu, Xiao Liu, Enhui Liu, Shuying Li, Hongtao Zheng, Zhiming Li (Harbin Engineering University)
Paper: ILASSA2020-1-01	<i>Evaporation characteristics of N-tetradecane pendant droplets with carbon nanotubes and ceric dioxide as nano-additives</i> Yaping Gao, Chao Sun, Dongmei Guo, Deqing Mei (Jiangsu University)
Paper: ILASSA2020-5-24	<i>Evolution of primary atomization subject to a nozzle disturbance frequency</i> Chenglin Zhou and Jianfeng Zou (Zhejiang University)
Paper: ILASSA2020-2-25	<i>Visualization investigation on the transient relation between internal flow and external characteristics of iso-pentane flashing spray</i> Jiafeng Wang, Zhifu Zhou, Bin Chen, Tao Yang, Guoxiang Wang (Xi'an Jiongtong University)