

16th ICLASS • June 23-27, 2024 • Shanghai • China									
PROGRAM									
DAY 1: SUNDAY, JUNE 23, 2024									
09:00-23:00	Registration at Venue								
18:00-21:00	Welcome Reception / Individual Dinner by Request								
DAY 2: MONDAY, JUNE 24, 2024									
7:00-8:00	Breakfast and Visit with Exhibitors								
8:00-8:20	Conference Opening and Welcome Remarks, Chair: Min Xu, Shanghai Jiao Tong University								
8:20-9:20	Honorabile Talk: Study on the lean fuel spray for clean and high efficiency combustion in Diesel Engines, Wanhua Su								
9:20-9:30	Conference Guide, Xuesong Li, Shanghai Jiao Tong University								
9:30-10:00	Morning Refreshments and Visit with Exhibitors								
10:00-11:00	Plenary Talk 1: Spray Research Opportunities in Industrial Sprays, Rudolf Schick, Spraying Systems Co.								
11:00-12:30	Panel Discussion 1: E-fuel Opportunities and Challenges, Chair: Zhiyu Han, Tongji University								
12:30-14:00	Lunch buffet, ILASS-Asia Regional Meeting								
14:00-15:30	Parallel Session 1								
	Cnf Room 2	Cnf Room 3	Cnf Room 4	Cnf Room 5	Cnf Room 6	Cnf Room 7	Cnf Room 1-1	Cnf Room 1-2	
	Coordinators: 1. Eva Gutheil 2. Haifeng Liu	Coordinators: 1. Marcus Herrmann 2. Zhaochen Jiang	Coordinators: 1. Yanzhi Zhang 2. Xi Xia	Coordinators: 1. Seoksu Moon 2. Zongjie Hu	Coordinators: 1. Edouard Berrocal 2. Yue Wu	Coordinators: 1. Timothy Lee 2. Fengnian Zhao	Coordinators: 1. Yanfei Li 2. Xinggang Li	Coordinators: 1. Suhani Park 2. Kang Yang	
	<i>Invited Lecture 1:</i> 1-2 1-3	<i>Invited Lecture 2:</i> 2-2 2-3	<i>Invited Lecture 3:</i> 3-2 3-3	<i>Invited Lecture 4:</i> 4-1	<i>Invited Lecture 5:</i> 5-2 5-3	<i>Invited Lecture 6:</i> 6-1 6-2 6-3	<i>Invited Lecture 7:</i> M1-1 M1-2 M1-3	<i>Invited Lecture 8:</i> M2-1 M2-2 M2-3	
	<i>Paper NO. or Invited Lecture</i>								
15:30-16:30	Afternoon Refreshments and Visit with Exhibitors, Posters Atomization and Sprays (AAS) Board Meeting								
16:30-18:00	Parallel Sessions 2								
	Cnf Room 2	Cnf Room 3	Cnf Room 4	Cnf Room 5	Cnf Room 6	Cnf Room 7	Cnf Room 1-1	Cnf Room 1-2	
	Coordinators: 1. Eva Gutheil 2. Haifeng Liu	Coordinators: 1. Marcus Herrmann 2. Zhaochen Jiang	Coordinators: 1. Yanzhi Zhang 2. Xi Xia	Coordinators: 1. Seoksu Moon 2. Zongjie Hu	Coordinators: 1. Edouard Berrocal 2. Yue Wu	Coordinators: 1. Timothy Lee 2. Fengnian Zhao	Coordinators: 1. Yanfei Li 2. Xinggang Li	Coordinators: 1. Suhani Park 2. Kang Yang	
	<i>Invited Lecture 2:</i> <i>Jun Hayashi</i> 1-4	<i>Invited Lecture 3:</i> <i>Haifeng Liu</i> 2-6	<i>Invited Lecture 4:</i> 3-4 3-5 3-6	<i>Invited Lecture 5:</i> 4-2 4-3 4-4	<i>Invited Lecture 6:</i> 5-4 5-5 5-6	<i>Invited Lecture 7:</i> 6-4 6-5 6-6	<i>Invited Lecture 8:</i> M1-4 M1-5 M1-6	<i>Invited Lecture 9:</i> M2-4 M2-5 M2-6	
	<i>Paper NO. or Invited Lecture</i>								
18:00-20:00	BBQ Dinner at Venue Yard								
20:00-22:00	Young/ Women Researcher Mixer at Venue								
DAY 3: TUESDAY, JUNE 25, 2024									
7:00-8:25	Breakfast and Visit with Exhibitors								
8:25-8:30	Conference Guide, Xuesong Li, Shanghai Jiao Tong University								
8:30-9:30	Plenary Talk 2: A Journey of Discovery in Cavitating Diesel Fuel Injector, Akira Sou, Kobe University. Chair: Jiro Senda, Doshisha University								
9:30-10:00	Exhibitor Showcase - Spraying Systems Co.								
10:00-10:30	Morning Refreshments and Visit with Exhibitors								
10:30-11:30	Plenary Talk 3: Some like it hot: Melt atomization with heated gases, Udo Fritsching, University of Bremen								
11:30-12:00	Exhibitor Showcase - Shanghai Jiading New City Development Co. Ltd.								
12:00-13:00	Lunch buffet								
13:00-15:00	Parallel Session 3								
	Cnf Room 2	Cnf Room 3	Cnf Room 4	Cnf Room 5	Cnf Room 6	Cnf Room 7	Cnf Room 1-1	Cnf Room 1-2	
	Coordinators: 1. Qian Wang 2. Yanzhi Zhang	Coordinators: 1. Qingfei Fu 2. Xi Xia	Coordinators: 1. Tiegang Fang 2. Chengming He	Coordinators: 1. Jiro Senda 2. Pengbo Dong	Coordinators: 1. Yingchun Wu 2. Giulia Finotello	Coordinators: 1. Wu Zhou 2. Tai Jin	Coordinators: 1. Zongjie Hu 2. Guangyu Dong	Coordinators: 1. Zhixia He 2. Jun Deng	
	<i>Invited Lecture 4:</i> <i>Zhiyu Han</i> 1-5 1-6	<i>Invited Lecture 5:</i> 2-7 2-8 2-9 2-10	<i>Invited Lecture 6:</i> 3-7 3-8 3-9 3-10	<i>Invited Lecture 7:</i> 4-5 4-6 4-7 4-8	<i>Invited Lecture 8:</i> 5-7 5-8 5-9 5-10 5-11	<i>Invited Lecture 9:</i> 6-7 6-8 6-9 6-10	<i>Invited Lecture 10:</i> M1-1 M1-2 M1-3 M1-4	<i>Invited Lecture 11:</i> M2-1 M2-2 M2-3 M2-4	
	<i>Paper NO. or Invited Lecture</i>								
15:00-16:30	Afternoon Refreshments and Visit with Exhibitors, Posters ILASS-Europe Regional Meeting								
16:30-18:00	Parallel Session 4								
	Cnf Room 2	Cnf Room 3	Cnf Room 4	Cnf Room 5	Cnf Room 6	Cnf Room 7	Cnf Room 1-1	Cnf Room 1-2	
	Coordinators: 1. Qian Wang 2. Yanzhi Zhang	Coordinators: 1. Qingfei Fu 2. Xi Xia	Coordinators: 1. Tiegang Fang 2. Chengming He	Coordinators: 1. Jiro Senda 2. Pengbo Dong	Coordinators: 1. Yingchun Wu 2. Giulia Finotello	Coordinators: 1. Wu Zhou 2. Tai Jin	Coordinators: 1. Zongjie Hu 2. Guangyu Dong	Coordinators: 1. Zhixia He 2. Jun Deng	
	<i>Invited Lecture 12:</i> 3-12 1-7 1-8	<i>Invited Lecture 13:</i> 2-11 2-12 2-13	<i>Invited Lecture 14:</i> 3-11 3-12 3-13	<i>Invited Lecture 15:</i> 4-10 4-11 4-9	<i>Invited Lecture 16:</i> 5-9 5-10 5-11	<i>Invited Lecture 17:</i> 6-11 6-12 6-13	<i>Invited Lecture 18:</i> M1-5 M1-6	<i>Invited Lecture 19:</i> M2-5 M2-6	
	<i>Paper NO. or Invited Lecture</i>								
19:00-22:00	Banquet and Awards Presentation at Conference Venue								
DAY 4: WEDNESDAY, JUNE 26, 2024									
7:00-8:20	Breakfast and Visit with Exhibitors								
8:20-8:30	Conference Guide, Xuesong Li, Shanghai Jiao Tong University								
8:30-9:30	Plenary Talk 4: Research on Unsteady Atomization of Liquid Propellants, Qingfei Fu, Beihang University, Chair: Eva Gutheil, Heidelberg University								
9:30-10:00	Morning Refreshments and Visit with Exhibitors								
10:00-11:30	Panel Discussion 2: AI in Atomization								
11:30-12:30	Lunch buffet, ILASS-International Meeting								
12:30-14:30	Parallel Session 5								
	Cnf Room 2	Cnf Room 3	Cnf Room 4	Cnf Room 5	Cnf Room 6	Cnf Room 7	Cnf Room 1-1	Cnf Room 1-2	
	Coordinators: 1. Tie Li 2. Zongyu Yue	Coordinators: 1. Xinqi Qiao 2. Tetsuo Nohara	Coordinators: 1. Chon Mun Soo 2. Timothy Haw-Yu Lee	Coordinators: 1. Udo Fritsching 2. Xiaodong Chen	Coordinators: 1. Jan Jedelsky 2. Jun Deng	Coordinators: 1. Elcner Jakub 2. Guillaume Castanet	Coordinators: 1. Marco Marengo 2. Xuesong Li	Coordinators: 1. Akira Sou 2. Jerome Bellettre	
	<i>Invited Lecture 19:</i> 1-10 1-11 1-12 1-13	<i>Invited Lecture 20:</i> 2-4 2-5 2-14 2-16	<i>Invited Lecture 21:</i> 3-14 3-15 3-16 3-17	<i>Invited Lecture 22:</i> 4-10 4-11 4-12 4-13	<i>Invited Lecture 23:</i> 5-12 5-13 5-14 5-15	<i>Invited Lecture 24:</i> 6-12 6-13	<i>Invited Lecture 25:</i> M1-7 M1-8 M1-9 M1-10	<i>Invited Lecture 26:</i> M2-7 M2-8 M2-9 M2-10	
	<i>Paper NO. or Invited Lecture</i>								
14:30-15:30	Afternoon Refreshments and Visit with Exhibitors, Poster Onsite Presentation ILASS-Americas Regional Meeting								
15:30-16:30	Parallel Session 6								
	Cnf Room 2	Cnf Room 3	Cnf Room 4	Cnf Room 5	Cnf Room 6	Cnf Room 7	Cnf Room 1-1	Cnf Room 1-2	
	Coordinators: 1. Tie Li 2. Zongyu Yue	Coordinators: 1. Xinqi Qiao 2. Tetsuo Nohara	Coordinators: 1. Chon Mun Soo 2. Timothy Haw-Yu Lee	Coordinators: 1. Udo Fritsching 2. Xiaodong Chen	Coordinators: 1. Jan Jedelsky 2. Jun Deng	Coordinators: 1. Elcner Jakub 2. Guillaume Castanet	Coordinators: 1. Marco Marengo 2. Xuesong Li	Coordinators: 1. Akira Sou 2. Jerome Bellettre	
	<i>Invited Lecture 27:</i> 1-14 1-15	<i>Invited Lecture 28:</i> 2-18 2-19	<i>Invited Lecture 29:</i> 3-18 3-19	<i>Invited Lecture 30:</i> 4-14 4-15	<i>Invited Lecture 31:</i> 5-16 5-17	<i>Invited Lecture 32:</i> 6-16 6-17	<i>Invited Lecture 33:</i> 3-20 3-21 6-18	<i>Invited Lecture 34:</i> M2-11 M2-12	
	<i>Paper NO. or Invited Lecture</i>								
17:30-18:30	Shuttle Departure and Detour to Cruise Destination								
18:30-21:00	Dinner at Excursion: Huangpu River Cruise or Buffet Dinner at Venue								
21:00-22:00	Shuttle Departure and Detour to Venue								
DAY 5: THURSDAY, JUNE 27, 2024									
7:00-8:20	Breakfast and Visit with Exhibitors								
8:20-8:30	Conference Guide, Xuesong Li, Shanghai Jiao Tong University								
8:30-10:00	Parallel Session 7								
	Cnf Room 2	Cnf Room 3	Cnf Room 4	Cnf Room 5	Cnf Room 6	Cnf Room 7			
	Coordinators: 1. Mohamed Nour 2. Cha Junepeyo	Coordinators: 1. Hengjie Guo 2. Sungwook Park	Coordinators: 1. Min Xu 2. Gregory Payne	Coordinators: 1. Liguang Li 2. Hyunwook Park	Coordinators: 1. Marcos Carreres 2. Zongjie Hu	Coordinators: 1. Peng Zhang 2. David Hung			
	<i>Invited Lecture 35:</i> 1-17 1-18 1-19	<i>Invited Lecture 36:</i> 2-17 2-18 2-19	<i>Invited Lecture 37:</i> 3-21	<i>Invited Lecture 38:</i> 4-17 4-18 4-19	<i>Invited Lecture 39:</i> 5-19 5-20 5-21	<i>Invited Lecture 40:</i> 6-19 6-20 6-21			
	<i>Paper NO. or Invited Lecture</i>								
10:00-10:30	Morning Refreshments and Visit with Exhibitors								
10:30-12:00	Parallel Session 8								
	Cnf Room 2	Cnf Room 3	Cnf Room 4	Cnf Room 5	Cnf Room 6	Cnf Room 7			
	Coordinators: 1. Mohamed Nour 2. Cha Junepeyo	Coordinators: 1. Hengjie Guo 2. Sungwook Park	Coordinators: 1. Min Xu 2. Gregory Payne	Coordinators: 1. Liguang Li 2. Hyunwook Park	Coordinators: 1. Marcos Carreres 2. Zongjie Hu	Coordinators: 1. Peng Zhang 2. David Hung			
	<i>Invited Lecture 41:</i> 1-20 1-21 1-22	<i>Invited Lecture 42:</i> 2-20 2-21 2-22	<i>Invited Lecture 43:</i> 3-22	<i>Invited Lecture 44:</i> 4-22 4-23	<i>Invited Lecture 45:</i> 5-22 5-23 5-24	<i>Invited Lecture 46:</i> 6-22 6-23 6-24			
	<i>Paper NO. or Invited Lecture</i>								
12:00-13:00	Lunch Buffet								
13:00-14:30	Parallel Session 9								
	Cnf Room 2	Cnf Room 3	Cnf Room 4	Cnf Room 5	Cnf Room 6	Cnf Room 7			
	Coordinators: 1. Fengnian Zhao 2. Qinglong Tang	Coordinators: 1. Zhixia He 2. Lingzhe Rao	Coordinators: 1. Kobayashi Yoshihiro 2. Chen Gong	Coordinators: 1. Keiya Nishida 2. Weiwei Shang	Coordinators: 1. Philipp Brockmann 2. Jun Hayashi	Coordinators: 1. Zongjie Hu 2. Guangyu Dong			
	<i>Invited Lecture 47:</i> 1-23 1-16 1-25	<i>Invited Lecture 48:</i> 2-23 2-24 2-25	<i>Invited Lecture 49:</i> 3-25 3-26 3-27	<i>Invited Lecture 50:</i> 4-21 4-22 4-23	<i>Invited Lecture 51:</i> 5-25 5-26 5-27	<i>Invited Lecture 52:</i> 6-25 6-14 6-15			
	<i>Paper NO. or Invited Lecture</i>								
14:30-15:00	Afternoon Refreshments and Visit with Exhibitors								
15:00-17:00	Parallel Session 10								
	Cnf Room 2	Cnf Room 3	Cnf Room 4	Cnf Room 5	Cnf Room 6	Cnf Room 7			
	Coordinators: 1. Fengnian Zhao 2. Qinglong Tang	Coordinators: 1. Zhixia He 2. Lingzhe Rao	Coordinators: 1. Kobayashi Yoshihiro 2. Chen Gong	Coordinators: 1. Keiya Nishida 2. Weiwei Shang	Coordinators: 1. Philipp Brockmann 2. Jun Hayashi	Coordinators: 1. Zongjie Hu 2. Guangyu Dong			
	<i>Invited Lecture 53:</i> 1-26 1-27 1-28 1-24	<i>Invited Lecture 54:</i> 2-26 2-27 2-29	<i>Invited Lecture 55:</i> 3-28 3-29 3-30 3-31	<i>Invited Lecture 56:</i> 4-24 4-26 4-16	<i>Invited Lecture 57:</i> 5-28 5-29 5-1	<i>Invited Lecture 58:</i> 6-26 6-27 6-28			
	<i>Paper NO. or Invited Lecture</i>								
17:00-17:40	Closing Ceremony and Concluding Remarks								
18:00-20:30	Farewell Dinner at Venue								
DAY 6: FRIDAY, JUNE 28, 2024 (OPTIONAL)									
8:00-17:00(Option1)	Lab Tour (Universities, National Laboratories)								
8:00-17:00(Option2)	Exploring Shanghai with Recommended Routes								

Invited Lectures

Invited Lecture 1	Cnf Room 5	Monday 14:00-15:00	Chenglong Tang	Xi'an Jiaotong University	Atomization, Droplet Evaporation and Combustion Behaviors of Impinging Jets at High Chamber Pressures
Invited Lecture 2	Cnf Room 2	Monday 16:30-17:30	Jun Hayashi	Kyoto University	Soot Formation Characteristics in Multi-phase Combustion Field
Invited Lecture 3	Cnf Room 3	Monday 16:30-17:30	Haifeng Liu	Tianjin University	Methanol Spray and Combustion under High-pressure Direct-injection Conditions in Engines
Invited Lecture 4	Cnf Room 2	Tuesday 13:00-14:00	Zhijun Wu	Tongji University	Cleaning Technology for Automotive Intelligent Sensors
Invited Lecture 5	Cnf Room 6	Tuesday 14:00-15:00	Eva Gutheil	Heidelberg University	On the Impact of Droplets and Sprays in Chemical Engineering Processes
Invited Lecture 6	Cnf Room 5	Tuesday 16:30-17:30	Keiya Nishida	University of Hiroshima	Blue Flame Combustion with Diesel Injection System - Modulating Spray Liquid Length and Flame Lift-Off
Invited Lecture 7	Cnf Room 7	Tuesday 17:00-18:00	Zhixia He	Jiangsu University	Nozzle Internal Cavitating Flow and Spray of High-Pressure Liquid Ammonia/Methanol Injection System
Invited Lecture 8	Cnf Room 1-1	Wednesday 13:30-14:30	Alessandro Montanaro	CNR STEMS	A Comprehensive Overview on the Fuels Spray Investigation for a Sustainable Combustion Process
Invited Lecture 9	Cnf Room 3	Wednesday 16:00-17:00	Edouard Berrocal	Lund University	Advanced Laser and X-ray Techniques for Imaging Atomizing Spray
Invited Lecture 10	Cnf Room 4	Thursday 09:00-10:00	Tiegang Fang	North Carolina State University	Droplet Impact on Different Surfaces
Invited Lecture 11	Cnf Room 5	Thursday 10:30-11:30	Tie Li	Shanghai Jiao Tong University	Research Progress on Similarity of Diesel Spray and Combustion
Invited Lecture 12	Cnf Room 7	Wednesday 12:30-13:30	Marcus Herrmann	Arizona State University	Simulating Atomization in Turbulent Flows

Industrial Reports

Number	Title	Presenter	Affiliation	Language
IS1-1	Geely Alcohol-Hydrogen High Thermal Efficiency Power Product Development	Ke Hu	Zhejiang Geely Powertrain Research Institute	Chinese (English Slides)
IS1-2	Manufacturing Inspection and Testing Technologies of Aero-engine Fuel Nozzle Precision	Yongchun Sun	Beijing Precision Engineering Institute for Aircraft Industry of AVIC	Chinese (English Slides)
IS1-3	Structural Design and Optimization of Gas Aerosolized Nozzle Based on Numerical Simulation	Lin Lu	Shanghai Research Institute of Materials Co., Ltd.	Chinese (English Slides)
IS1-4	Application of Fluid Technology in Automotive On-board Cleaning	Xiangxiang Lu	Jiangsu Riying Electronics Co., Ltd.	Chinese (English Slides)
IS1-5	Application of Spray and Combustion in Small Gas Turbines	Haitian Zhu	Shanghai Helan Turbines Co., Ltd.	Chinese (English Slides)
IS1-6	Development and Application cases of Schlieren System	Yuxi Li	Liaoning Flowfield Measurement System Co., Ltd.	Chinese (English Slides)
IS2-1	Application of Liquid or Hydrogen Fuel Injection in Internal Combustion Engines	Jianye Su	United Automotive Electronic Systems Co., Ltd.	English
IS2-2	RFlow Analysis Software: High-Speed Camera Technology Applied to Spray Droplet Dynamics Analysis	Jie Guo	HF Agile Device Co., Ltd.	English
IS2-3	Research on the application of high-performance thermal barrier coatings on internal combustion engines	Chunguang Fei	Wuhan University of Technology	English

Detailed Information for Papers

Number	Title	Author	Affiliation
1-1	Effects of Targeted Fuel Injection on Knock-Limited Combustion and Emissions of a Turbocharged SI Engine	Shuo Meng, Zhiyu Han, Feifan Ji, Benzhen Fan, Zhenkuo Wu, Qiang Shao, Laihui Tong	Tongji University, SAIC Motor R&D Innovation Headquarters
1-2	Experimental Description of Primary Breakup of Turbulent Rocket Engine Liquid Jet Flames	L. Geiger, N. Fdida, L.-H. Dorey, M. Théron, J.-B. Blaisot, C. Dumouchel	Paris-Saclay University, University of Normandy, CNES
1-3	Carbon Black Nanoparticle Synthesis via Flame Spray Pyrolysis	Fabio Henrique Bastiani, Pedro Bianchi Neto, Malte Stodt, Udo Fritsching, Dirceu Noriler	State University of Campinas, Leibniz Institute for Materials Engineering, University of Bremen
1-4	Swirl-Stabilized Combustion of Jet-Fuel Using a Continuous Emulsified Process	Yongbin Ji, Bing Ge, Shusheng Zang, Jérôme Bellettre, Jishen Jiang	Harbin Institute of Technology, Shanghai Jiao Tong University Shanghai, Nantes University, Sun Yat-Sen University
1-5	Methanol – N-Dodecane Dual-Fuel Direct-Injection Combustion under Compression Ignition Conditions in a Constant Flow Chamber	Rafael Clemente Mallada, Hamidreza Fajri, Sebastian Riess, Lukas Strauss, Michael Wensing	Friedrich-Alexander University Erlangen-Nuremberg
1-6	Effect of Hydrocarbon Composition on Spray Behavior under Flash Boiling Condition Using Schlieren Imaging in Simulated E-Gasoline	Naeun Choi, Jeonghyun Park, Suhan Park	Konkuk University
1-7	Fundamental Investigation of Methanol Flash Boiling Combustion under Direct Injection Conditions	Mingli Cui, Jinhong Fu, Weixuan Zhang, Mohamed Nour, David Hung, Xuesong Li, Min Xu	Shanghai Jiao Tong University, Benha University
1-8	Numerical Analysis of the Influence of Pressure Disturbances on Combustion in Liquid Rocket Engines with Atomization through Impinging Jets	Zhili Peng, Bo Zhong, Longfei Li, Xiaodong Chen	Beijing Institute of Technology, Xi'an Aerospace Propulsion Institute
1-10	Investigation of Ethanol Flash Boiling Combustion in a Constant Volume Combustion Chamber under Direct Injection Conditions	Xulin Luo, Mingli Cui, Weixuan Zhang, Mohamed Nour, David Hung, Xuesong Li, Min Xu	Shanghai Jiao Tong University, Benha University
1-11	Impact and Mechanisms of Flash Boiling Spray on Methanol-Gasoline Mixed Fuel Combustion in Constant Volume Combustion Chamber	Jinhong Fu, Mingli Cui, Weixuan Zhang, Mohamed Nour, David Hung, Xuesong Li, Min Xu	Shanghai Jiao Tong University, Benha University
1-12	Experimental Study on Spray and Flame of Diesel from Direct Coal Liquefaction	Xinqi Qiao, Zhao Lyu, Tengfei Wang, Jianda Yu	Shanghai Jiao Tong University
1-13	Flash Boiling Combustion of Gasoline Blends with Ethanol/Butanol Using Constant Volume Combustion Chamber and Direct Injection	Weixuan Zhang, Mingli Cui, Jinhong Fu, Mohamed Nour, David Hung, Xuesong Li, Min Xu	Shanghai Jiao Tong University, Benha University
1-14	Measurement of 2D Velocity Field inside a Diesel Spray Flame by Using PIV	Zama Y, Hoshino K, Tamegai H, Mukayama T, Furukawa S	Gunma University, Isuzuadvancedengineeringcenter, Ltd.
1-15	An Experimental and Numerical Study on the Local Extinction Mechanisms of an Ethanol Spray Swirling Flame	Meng Wang, Meng Sheng, Yongjun Wang, Chen Fu, Xiaoyang Wang, Juan Yu, Man Zhang, Yi Gao	Shanghai Jiao Tong University, AECC Commercial Aircraft Engine Co., Ltd.
1-16	Effects of Fuel Injection Type on Real-World Emissions in Light-Duty Vehicles	Jongtae Lee, Jisu Park, Yunsung Lim, Sungwook Park	National Institute of Environmental Research, Hanyang University
1-17	Visualization Study on Ignition and Combustion Characteristics of Natural Gas Ignited by Pilot Diesel	Yuhang Shen, Kang Yang, Yu Jin, Tiemin Xuan, Zhixia He	Jiangsu University
1-18	Eulerian-Lagrangian Simulation of Liquid-Fueled Oblique Detonation on Openfoam	Wenhao Wang, Zongmin Hu, Peng Zhang	Chinese Academy of Sciences, University of Chinese Academy of Sciences, City University of HongKong
1-19	Fundamental Investigation of N-Heptane under Flash Boiling and Sub Cooling Temperature Conditions in a Combustion Chamber	Muhammad Shahbaz, Mingli Cui, Jinhong Fu, Weixuan Zhang, Mohamed Nour, David Hung, Xuesong Li, Min Xu	Shanghai Jiao Tong University, Benha University
1-20	Correlating the Spatio-Temporal Spray Flame Evolution of the Spraysyn II Burner	Malte F. B. Stodt, Johannes Kiefer, Udo Fritsching	Leibniz Institute for Materials Engineering IWT, University of Bremen
1-21	Ignition and Combustion Characteristics of N-Dodecane Spray: Comprehensive Study of The Physical and Chemical Effects	Zhaoming Mai, Chenglong Tang, Yingtao Wu, Zuohua Huang	Xi'an Jiaotong University
1-22	Ammonia Spray Combustion in the Combustor with Pre-Combustion Chamber for a Micro Gas Turbine	Norihiko Iki	National Institute of Advanced Industrial Science and Technology (AIST)
1-23	Comparative Study of Droplet Combustion Characteristics for Water-In-Diesel and Biodiesel Nanoemulsions, Fuel-Surfactant Blends, and Base Fuel	Rahul Kumar Chowdhary, Srikrishna Sahu, Madivala G. Basavaraj, Niket S. Kaisare	Indian Institute of Technology Madras
1-24	The Ignition Timing and Injection Duration Effect on Sparked-Spray Combustion of Gasoline and Methanol in the Atmospheric Environment	Zikang Wang, Minglong Li, Wangchao Yu, Zongjie Hu, Liguang Li	Tongji University
1-25	Understanding Ignition and Combustion Processes of Primary Reference Fuels for Advanced Compression Ignition Application	Hyung Sub Sim, Jiho Park, Lyle M. Pickett, Julien Manin, Le Zhao, Yuanjiang Pei	Sejong University, Sandia National Laboratories
1-26	Exploration of Spray and Combustion Characteristics of Biofuel Created via Hydrothermal Liquefaction and Blends with Diesel	Timothy H. Lee, Ziming Yang, Qi Wang, Wan-Ting Chen, Yuanhui Zhang	Zhejiang University, Beijing Institute of Technology, UMass Lowell Francis College of Engineering, University of Illinois Urbana-Champaign
1-27	A Study on the Influence of Environmental Pressure on Nano-Diesel Spray and Combustion Characteristics	Jianan Li, Zongyu Yue, Jiayu Wang, Haifeng Liu, Mingfa Yao	Tianjin University
1-28	Abnormal Combustion Suppression by Controlling Injection Parameters in Port-Injection Hydrogen Internal Combustion Engines	Hyunwook Park, Junsun Lee, Seungmook Oh, Yonggyu Lee, Changup Kim, Wonseok Lee, Sangseol Lee	Korea Institute of Machinery and Materials, University of Science and Technology, HD Hyundai Infracore

2-1	Visualization of Spray Structure of a Multi-Slit Type Gas-Liquid Pintle Injector	Subeom Heo, Inho Kim, Juhwan Jeong, Ingyu Lee, Dae Hwan Kim, Youngbin Yoon	Seoul National University, Seoul National University
2-2	Influence of Impingement Distance on Fuel Adhesion of Flat-Wall Impinging Fuel Spray in Cross-Flow Ambient	Penghua Shi, Yoichi Ogata, Kei-ya Nishida, Nguyen Binh Trong, Hongliang Luo, Gengxin Zhang	Hiroshima University, Harbin Engineering University, University of Birmingham
2-3	Experimental Investigation on Spatio-Temporal Spray Characteristics for Slit Nozzle of Different Injection Pressures	Wensong Liu, Zhe Li, Mengqi Liu, Fengnian Zhao, David L.S. Hung, Xuesong Li, Min Xu, Jiating Fang, Guangping Xu, Bin Tang	Shanghai Jiao Tong University, Spraying Systems Co.
2-4	Beads-on-string Structure Formation and Breakup in Viscoelastic Filament	Siyu Chen, Nasser Ashgriz	University of Toronto
2-5	Analysis of Internal Flow and Breakup Process of Twin-Fluid Atomizers with Different Mixing Port Length	Y. Deng, W. Xing, K. Sato, K. Nishida, Y. Ogata, Y. Jin, X. Leng, D. Chen	Hiroshima University, Yamagata University, Jiangsu University, Yanshan University
2-6	On The Flash-Assisted Atomization of Miscible and Immiscible Binary Mixtures	Rongying Tian, Agisilaos Kourmatzis, Yilong Zhang, Assaad R. Masri	The University of Sydney
2-7	Jet Acoustics and Spray Characteristics of a Miniaturized Feedback Oscillator	Chaoqun Hu, Zongjie Hu, Longbiao Hu, Guanyu Zhang, Min Gao, Xiangxiang Lu, Rongzhu Shi, Zhijun Wu	Tongji University, Jiangsu Riyang Electronics Co., Ltd.
2-8	Effects of Jet Anti-Shear Ability on Liquid Column Morphology and Flow Field Characteristics for Gas-Liquid Pintle Injector	Chengchao Cui, Pengjin Cao, Peng Cheng, Jingjing Liao, Qinglian Li	National University of Defense Technology
2-9	Effects of Swirl Ratio on the Spray Angle and Atomization Characteristics	Yechan Seo, Won Choi, Jeekeun Lee	Jeonbuk National University, Jeonbuk National University
2-10	The Coarse Droplets Formation from the Water Condensate Film at Transonic Flow	Ondřej Bartoš, Adam Huněk, Pavel Antoš	CTU in Prague, Czech Academy of Sciences
2-11	Effect of Crossflow Mach Number on Liquid Jet Spray Characteristics	Kukkarasi Ramana, S. Deivandren, R.N. Govardhan	Indian Institute of Science, Indian Institute of Science
2-12	Droplet Dynamics in Dense Oil Sprays Produced By Internal-Mixing Atomizer Using Steam as the Dispersing Medium	Matheus Rover Barbieri, Lydia Achelis, Udo Fritsching	University of Bremen, Leibniz Institute for Materials Engineering IWT
2-13	Characteristics of Interacting Sprays in Triplet Gas-Centered Swirl Coaxial (Gcsc) Injectors	Surya Ghosh, Srikrishna Sahu	Indian Institute of Technology Madras
2-14	An Experimental Analysis of the Air-Liquid Interaction of Conventional and Alternative Aviation Fuel	Inês A. S. Ferrão, Miguel A. A. Mendes, Ana. S. O. H. Moita, André R. R. Silva	University of Beira Interior, University of Lisbon
2-16	Comparison of Droplet Dynamics in Low-Speed Gaseous Counter-Flow: Pressure-Swirl and Twin-Fluid Sprays	Ondřej Cejpek, Milan Maly, Jiri Hajek, Ondrej Hajek, Miloslav Belka, Jan Jedelsky	Brno University of Technology
2-17	Spray Structure in Triple Coaxial Pre-Filming Air-Blast Nozzle due to Droplet-Swirl Interaction and Flare Geometry	Reza Alidoost Dafsari, Milad Khaleghi Kasbi, Mehrzad Ansarpour, Mohamed Yahya Hashim, Joopyung Kim, Jeekeun Lee	Jeonbuk National University, Hanwha Aerospace R&D
2-18	Atomization of Shear-Thinning Liquids Using Pressure Swirl Atomizers	Jan Jedelsky, Selwyn Van der Laan, Ondrej Cejpek, Milan Maly, Martin Kadlec, Jiri Smilek	Brno University of Technology, National Institute of Mechanical and Aerospace Technology
2-19	Spray Characteristics of a Multi-Hole Injector for Gasoline under Ultra-High-Pressure	Xinke Miao, Bingxin Xu, Yongjian Tang, Yang Yuan, Jian Shi, Jun Deng, Liguang Li	Tongji University, Marelli (China) Co., Ltd
2-20	On the Dynamics of Asymmetric-Radially Expanding Liquid Sheet Originating from Impact of Like-on-unlike Impinging Jets	Karthikeyanathan S., Shanmugasdas K. P., Madhavan T. G., S. R. Chakravarthy	ISRO Propulsion Complex, Department of Mechanical Engineering IIT Jammu, NCCRD & Department of Aerospace Engineering IIT Madras
2-21	Effect of Atomizer Performance on CO2 Capture Efficiency in Spray Tower: Pressure Swirl and Effervescent Atomizers	Maly M., Cejpek O., Hajek J., Jedelsky J.	Brno University of Technology
2-22	Study on Σ -Y Eulerian Spray Atomization Model of Spray A and Spray D	Hui Wang, Weiwei Shang, Sensen Bai	Henan University of Science and Technology
2-23	Twin Fluid Injector for Fcc Feed Injection: a Performance Analysis with Glycerol Mixtures	Deepak Kumar, Abhijit Kushari, Pramod Kumar, Hament Mishra	Indian Institute of Technology Kanpur, Hindustan Petroleum Corporation Limited
2-24	Droplet Size Distribution for Liquid Jets in Swirling Crossflow of Air at High Pressure	Deepak Kuma, Abhijit Kushari	Indian Institute of Technology
2-25	Experimental Study on the Flash Boiling Spray Characteristics for Liquid Ammonia	Chaoqun Hu, Zhijun Wu, Longbiao Hu, Haie Chen, Jing He, Liguang Li, Jun Deng	Tongji University, Foshan Xianhu Laboratory
2-26	Diesel Spray Asymmetry Characteristics of Dual-Orifice Nozzles for Marine Medium-Speed Engines	Li Huang, Jiahui Deng, YangLiu, Dehao Ju, Mingzhi Feng, Zhen Huang	Shanghai JiaoTong University, National Key Laboratory of Marine Engine Science and Technology, Shanghai Marine Diesel Engine Research Institute
2-27	Spray Characteristics of Nano and Micron- Al_2O_3 Diesel at Various Ambient Temperatures	Zhefeng Guo, Timothy H. Lee, Sheng-lun Lin	Zhejiang University, National Cheng Kung University
2-28	Effect of Bubble-Breaker Geometry on Spray Parameters of Effervescent Atomizer: Preliminary Study	Maly M., Cejpek O., Hajek J., Hajek O., Jedelsky J.	Brno University of Technology
2-29	Aerodynamic Breakup of Gel Suspension	Yufan Wang, Hui Zhao, Haifeng Liu	East China University of Science and Technology

3-1	Visualization of Droplet Behaviours and Numerical Prediction of a Droplet Motion on the Turbine Bucket	Ippei Oshima, Mikito Furuichi, Yuya Nakashima, Masahiro Sato	Tohoku University, Japan Agency for Marine-Earth Science and Technology, Fuji Electric Co., Ltd.
3-2	Drop Impact onto a Heated Liquid Film	Lukas Weimar, Ilia V. Roisman, Jeanette Hussong	Technical University of Darmstadt
3-3	Time Scales in Drop Shape Oscillations	Dino Zrnić, Günter Brenn	Graz University of Technology
3-4	Numerical and Experimental Study of the Cooling Capacity of a Mql System	Kaissar Nabbout, Martin Sommerfeld, Benjamin Bock-Marbach, Jörg Kuhnert	Otto von Guericke University Magdeburg, Fraunhofer Institute for Industrial Mathematics ITWM
3-5	Interface-Capturing Simulations of Shock/Fuel-Droplet Interaction at High-Pressure Conditions	Nguyen Ly, Matthias Ihme	Stanford University, SLAC National Accelerator Laboratory
3-6	Visualization of Impingement Phenomena in Two-Phase Flow and Verification of UWS Atomization Effect by New Surface Texture	Joe Ono, Daisuke Minuora, Tetsuo Nohara, Masayuki Ochiai, Akihiko Azetsu	Graduate School of Tokai University, Tokai University
3-7	An Experimental Study on the Lifting of a Falling Droplet in Air Crossflow	Chunchun Chu, Yan Bai, Yongjie Chen, Ying Zhang, Yifan Yang, Xi Xia	Shanghai Jiao Tong University
3-8	“Droplet Interaction Technologies” (Droptit): Recent Results of the International Research Training Group Grk2160/2	A. K. Geppert, S. Tonini, M. Santini, S. Fest-Santini, G. Lamanna, G. E. Cossali, B.Weigand	University of Stuttgart, University of Bergamo
3-9	Decoupling Effects of Ambient Gas Pressure and Density on Impinging Jet Atomization	Lihan Fei, Guanwen You, Yuan Li, Chenglong Tang, Zuohua Huang	Xi'an Jiaotong University
3-10	Effect of Alternating Electric Field on the Evolution of Liquid Film with Low Surface Tension Resulting from Spray-Wall Impingement	Yuhe Su, Ming Jia, Yanzhi Zhang, Dongyue Jiang	Dalian University of Technology
3-11	A New Scaling Law of Splashing Threshold for Droplets Impacting on a Smooth Solid Surface	Tao Yang, Peng Zhang	City University of Hong Kong
3-12	Experimental Research on the Evaporation Characteristics of Suspended Single Liquid Ammonia Droplet under Different Ambient Conditions	Xiaoxin Yao, Gangwei Zeng, Ao Liu, Lihan Fei, Zhaoming Mai, Xiao Liu, Chenglong Tang, Zuohua Huang	Xi'an Jiaotong University
3-13	Liquid Film Burst Caused by Perpendicularly Blowing Gas Jet	Shangning Wang, Yilong Li, Yijia Zhang, Shuyi Qiu, Xuesong Li, Min Xu	Shanghai Jiao Tong University
3-14	Measurement of Temperature Profile inside a Thin Steady Evaporating Film	Pritam Kumar Singh, Shamit Bakshi	Indian Institute of Technology Madras
3-15	Modal Analysis of Impinging Jet Atomization	Bo Wang, Guohui Cai, Erjun Wu, Qinquan Liu, Xiaodong Chen	Beijing Institute of Technology, Beijing Institute of Technology
3-16	Interfacial Instabilities in a Fast Stretched Suspension Bridge with and without Particle Pre-Structuring	Philipp Brockmann, Hatim Ennayar, Max Lannert, Xulan Dong, Yuhao Cao, SebastianBrulin, Ilia V. Roismanand Jeanette Hussong	Technical University of Darmstadt, Honda Research Institute Europe
3-17	Spray Characteristics of the Collision between Two Spinning Jets	Haoji Qiu, Chengming He, Zhiyuan Niu, Zhixia He	Jiangsu University
3-18	Asymmetric Air Film Evolution and Decelerated Dimple Motion in Droplet Impact on Inclined Solid Surfaces	Xiaoyuan Yang, Yi Zhang, Bingyao Huang, Yuyang Li	Shanghai Jiao Tong University
3-19	Impact and Spread Characteristics of Kerosene Gelled with Fumed Silica	Max Thielemier, Kaushik Nonavinakere Vinod, Ryan Abell, Caleb Kebede, Tiegang Fang	North Carolina State University
3-20	Impact and Boiling Regime Transition Dynamics of Water on a Superheated a Smooth Surface	Kaushik Nonavinakere Vinod, Nabhansul Satra, Caleb Kebede, Tiegang Fang	North Carolina State University
3-21	Laser Doppler Velocimetry Analysis of Gas Flow Impact on Droplet Movement in a Rotating Packed Bed	Ondrej Hajek, Milan Maly, Ondrej Cejpek, Michal Blatkievicz, Malgorzata Majdzik, Miroslav Jicha	Brno University of Technology, Lodz University of Technology
3-22	Spread and Evaporation of Liquid Film Formed by Fuel Spray Impingement on Walls Having Various Surface Roughness Properties	Yoshihiro Kobayashi, Hiroki Hori, Kazuki Yamauchi, Masataka Arai	Tokyo Denki University
3-23	Effect of Strong Crossflow on the Stretching Separation of Binary Droplet Collision	Yan Bai, Yongjie Chen, Chunchun Chu, Ying Zhang, Xi Xia	Shanghai Jiao Tong University
3-24	Insights in Freely Moving Drop and Particle Collisions	Planchette Carole, Le Gac Jean-Baptiste, Steinscherer Sebastian, Kirsten Ines	Graz University of Technology, National Institutes of Science and Technology of Rouen
3-25	Experimental Study of Impinging Spray and Cleaning Effect on the Contaminated Surface	Zhijun Wu, Huilin Ruan, Lujia Ran, Zongjie Hu, Wangchao Yu, Minglong Li, Xiangxiang Lu, Rongzhu Shi, Liguang Li	Tongji University, Jiangsu Riying Electronics Co., Ltd.
3-26	Modelling the Maximum Spreading of a Compound Droplet Impacting a Solid Surface	I. Alkomy, M. Marengo, A. Amirfazli	York University, University of Pavia
3-27	Spreading and Receding of Impacting Droplets on Superhydrophobic Cantilever Films	Kumar Gaurav, SDeivendren	Indian Institute of Science
3-28	Experimental Research on Droplet Collision under High Ambient Pressure	ChenweiZhang, Zhenyu Zhang, Peng Zhang, Jinhui Zhou, Changlu Zhao	Beijing Institute of Technology, City University of Hong Kong
3-29	Experiment about Viscosity Weakening the Impact of Ambient Pressure on Droplet Collisions	Jinhui Zhou, Zhenyu Zhang, Chenwei Zhang	Beijing Institute of Technology
3-30	Interface-Resolved Simulations Using Adaptive Mesh Refinement of the Primary Breakup of Molten Metal	Dennis Thuy, Niels G. Deen, Joris J.C. Remmers, Giulia Finotello	Eindhoven University of Technology
3-31	Unravelling the Generation of a Rectangular Liquid Umbrella after Droplet Impact onto a Small Square Surface	A. K. Geppert, D. B. Brajer, M. Marengo	University of Stuttgart, University of Pavia
3-32	Experimental Study on the Effect of Airflow Density on Bag Breakup of Water Droplet in Airflow with Different Temperatures	Ke Zheng, Zhiwen Gan	Beijing University of Aeronautics and Astronautics

4-1	Evaluation of Air-Assisted Spray Unsteadiness under Different Injection Strategies	Yue Hui, Hao Wu, Zhenyu Zhang, Fujun Zhang	Beijing Institute of Technology, King Abdullah University of Science and Technology (KAUST)
4-2	The Deformation and Atomization Process of a Planar Liquid Sheet with the Fluctuation of Cocurrent Air Flow	Hiroki Kato, Kanato Mori, Akira Sou, Ippei Oshima, Kodai Kato, Kazuaki Matsuura	Kobe University, Tohoku University, Japan Aerospace Exploration Agency
4-3	Spatial Disparity of Spray Influenced by the Flow Structures of a Two-Stage Counter-Swirl Injector	Tao Chen, Qiuxiao Wang, Shengming Yin, Mingming Gu, Xuesong Li, Xi Xia	Shanghai Jiao Tong University
4-4	Transient Injection Rate Characteristics of GDI Injector under Various Fuel Temperatures Including Sub-Zero Condition	Jihyun Son, Gyuhan Bae, Seoksu Moon	INHA University
4-5	Influence of Injection Pressure on Ignition Delay and Lift-Off Length	Lukas Strauss, Sebastian Riess, Rafael Clemente Mallada, Michael Wensing	Friedrich Alexander University Erlangen-Nuremberg
4-6	Microscopic Spray Characteristics of Simulated E-Gasoline in Multi-Hole Injector	Jeonghyun Park, Naeun Choi, Suhan Park	Graduate School of Konkuk University, Konkuk University
4-7	Evaluation of Spray and Durability Characteristics by Using a LPG Fuel	Jun Woo Jeong, Seungchul Woo, Seung Lee Kim, Sihyun Park, Kihyung Lee	Hanyang University
4-8	Experimental Investigation of Micrometer-sized N-decane Droplet Evaporation Behavior in a Heated Drop Tube	Shion A, Kenshin K, Yuto K, Jaeseok W, Kosei K, Osamu M	Kyushu University
4-9	Computational Realization of Popping Impinging Sprays of Hypergolic Bipropellants by a Spray-Equation Approach	Jinyang Wang, Kai Sun, Tianyou Wang, Peng Zhang	Tianjin University, City University of Hong Kong
4-10	An Investigation of Condensation Process of Liquid Ammonia Spray During High-Pressure Injection	Yujin Cong, Ping Yi, Tie Li, Shiyun Li, Ning Wang, Xinyi Zhou	Shanghai Jiao Tong University
4-11	Flash-Boiling Liquid Ammonia Fuel Spray near Supercritical Transition Conditions	Kaushik Nonavinakere Vinod, William L. Roberts, Tiegang Fang	North Carolina State University, King Abdullah University of Science and Technology
4-12	The Effect of Low Fuel Temperature on Near-Nozzle Swirl Atomization Characteristics via Three-Dimensional (3D) Holographic Imaging	Yingchun Wu, Yue Zhao, Lei Wang, Yu Wang, Hang Zhang, Ge Song, Tao Liu, Xuecheng Wu	Zhejiang University, AECC Hunan Aviation Powerplant Research Institute
4-13	Effect of Flash Boiling Regimes on Spray Characteristics with Multi-Hole Lpdi Injector	Dongheon Shin, Sungwook Park	Hanyang University
4-14	The Impact of GDI Nozzle Structure Parameters on Spray Characteristics	Guanyu Zhang, Pengfei Leng, Chaoqun Hu, Chunyu Yang, Liguang Li, Jun Deng, Zhijun Wu	Tongji University
4-15	Visualization and Investigation of Hydrogen Jets Utilizing a Multi-Hole GDI Injector	Hao Wu, Moez Ben Houidi, Bin Wu, Jianguo Du, Fahad Almatrafi, William L. Roberts	King Abdullah University of Science and Technology (KAUST), FoshanXianhu Laboratory
4-16	Spray Detonations in N-Dodecane Mists Considering Droplet Fragmentation Effects	Qingyang Meng, Huangwei Zhang	National University of Singapore (Chongqing) Research Institute, National University of Singapore
4-17	Effect of Injector Design on Spray Characteristics and Heat Flux in Liquid Rocket Engines	JinheeJang, Cheolwoong Kang, Hadong Jung, Dongwoo Choi, Changyoung Oh, JiwonLee, Seunghyeon Lee, Kyubok Ahn	Chungbuk National University
4-18	Study on the Ammonia Spray Characteristics under Flash Boiling and Non-Flash Boiling Conditions	Rui Yang, Haolan Cheng, Qinglong Tang, Shouzhen Zhang, Mingfa Yao	Tianjin University, Qinghai Minzu University
4-19	A Study on the Spray Behavior and Operating Performance of Port Fuel Injector According to the Valve Seat Angle	Seung-cheon Ro, Joon-hee Park, Hyung-ik Kim, Dong-gil Shin, Young-jun Cho, Chun-ky Hong	Product design Team 2 Hyundai Kefico, Proto development Team Hyundai Kefico, Product design Team 1 Hyundai Kefico
4-20	Optical Diagnostic Study of N-Heptane/Liquid Ammonia Dual Direct Injection Combustion Characteristics	Zhenyang Ming, Zhi Zhang, Wenjie Wang, Mingsheng Wen, Yanqing Cui, Haifeng Liu	Tianjin University, The Hong Kong Polytechnic University
4-21	Wedge-Stabilized Oblique Detonation in N-Dodecane Spray and Air Mixtures	Yuanying Wang, Shangpeng Li, Shumeng Xie, Huangwei Zhang	National University of Singapore, National University of Singapore (Chongqing) Research Institute
4-22	Transcritical and Supercritical Fuel Sprays in Subcritical Environments	Robert Kempin, Kaushik Nonavinakere Vinod, Owen Morris, Tiegang Fang	North Carolina State University
4-23	Study of High-Pressure Hydrogen Direct Injection for Internal Combustion Engines	A.Montanaro, L.Allocca, G.Meccariello	Institute STEMS-National Research Council
4-24	Synthetic Gasoline-Like Fuels and Their Spray Behaviors: Unveiling the Potential of Dmc, Ethanol, Etg, G40, and Bio Naphtha	Weidi Huang, Mitsuharu Oguma, Kotaro Tanaka	National Institute of Advanced Industrial Science and Technology, Ibaraki University
4-26	Spray Characteristics of Ammonia-Methanol Blend at High Injection Pressure	Minglong Li, Zikang Wang, Wangchao Yu, Zongjie Hu, Liguang Li	Tongji University

5-1	Development of the Pdia Technique for Assessing the Diameter Distribution of Spray Droplets	Mohammad Javad Akbari	MAPNA Turbine Engineering & Manufacturing Co. (TUGA)
5-2	Ground-Based Piv Measurement of Velocity Field in Premixed Combustion with the Combustion Science Rack aboard the China Space Station	Yu Fang, Xianzhang Peng, Huilong Zheng, Xiaofang Yang, Xiaowu Zhang	Chinese Academy of Sciences, University of Chinese Academy of Sciences, Jiangsu University
5-3	Experimental Study of Temperature Gradient inside an Ir Heated Oil Droplet by the Use of Planar 2C LIF	Thomas Naudin, Dominique Tarlet, Raffaella Calabria, Patrizio Massoli, Jérôme Bellettre	Nantes University, CNR - Institute of Science and Technology for Sustainable Energy and Mobility
5-4	Three-Dimensional (3D) Measurement of Near-Nozzle Droplet Field in a Combusting Swirl Spray Via Digital Off-Axis Holography	Yue Zhao, Lei Wang, Yu Wang, Hang Zhang, Yingchun Wu, Ge Song, Tao Liu, Wei Xiao, Jianhan Feng, Xuecheng Wu	Zhejiang University, AECC Hunan Aviation Powerplant Research Institute
5-5	PIV Measurements in the Inner Crown Wall Resulting from Droplet Impact on a Thin Liquid Film	Stefan Schubert, Moritz Stein, Anne K. Geppert, Grazia Lamanna	University of Stuttgart, German Aerospace Center (DLR)
5-6	A Tomographic Background-Oriented Schlieren Imaging Method for the 3D Measurement of Gaseous Fields Based on Deep Learning	FuhaoZhang, Shuicheng Gong, Xuesong Li, Min Xu	Shanghai Jiao Tong University
5-7	Voxel-Based and Deep Learning for 3D Combustion Diagnostics	Zhiyin Ma, FuhaoZhang, Qingchun Lei, Xuesong Li, Min Xu	Shanghai Jiao TongUniversity, Northwestern Polytechnical University
5-8	Three-Dimensional Reconstruction of Gaseous Fuel Jets Based on Ray Tracing Background-Oriented Schlieren Technique	Can Gao, Fuhao Zhang, Shuicheng Gong, Min Xu, Xuesong Li	Shanghai Jiao Tong University
5-9	Extending the Size Range and Data Rate of Imaging Diagnostic for Particle Field Characterization	Manin J., Bachalo W., Payne G.	Artium Technologies Inc.
5-10	Evaporation of Acoustically Levitated Bicomponent Droplets: Composition Measurements and Theoretical Assessment	M. Wang, M. Stiti, H. Chaynes, G. Castanet	University of Lorraine, University of Toulouse
5-11	Research on the Spray Characteristics of Urea Swirl Nozzle Based on Various Optical Particle Size Measurement Methods	Wei Huang, Chong Wang, Zhaochen Jiang, Wenjun Zhong, Zhixia He	Jiangsu University
5-12	Particle Filtration Analysis of Fabrics Using a Controlled Burst to Simulate Sneezing	Kaushik Nonavinakere Vinod, Didem Kiryaman, Emiel DenHartog, Tiegang Fang	North Carolina State University
5-13	Spray Distribution Differences between a Mechanical Patternator and Laser Sheet Imaging	Kyle M. Bade, James J. Tibble, Rudolf J. Schick	Spraying Systems Co.
5-14	Liquid Mass Distribution of the "Ecn Spray M" Measured Using Laser-Driven X-Ray Tomography	E. Löfqvist, B. Lehnert, C. Gustafsson, A. Angella, A. Persson, M.Wensing, O. Lundh, E. Berrocal	Lund University, University of Erlangen-Nuremberg
5-15	Measurement of High Number Density Spray Drops Based on Depth from Defocus (DFD) Imaging Technique	Rixin Xu, Wu Zhou, Wenchao Gong, Zaojie Huang, Cameron Tropea	University of Shanghai for Science and Technology, Shanghai KeyLaboratory of Multiphase Flow and Heat Transfer for Power Engineering, Technical University of Darmstadt
5-16	Influence of Liquid Exit Turbulence on Breakup and Atomization of Liquid Jets in Crossflow	Mingyun Xie, Shengqi Wu, Bin Yu, Haochen Liu, Zifei Yin, Miaosheng He, XiaobinHuang, Hong Liu	Shanghai Jiao Tong University, Chongqing Research Institute of Aerospace Propulsion Technology, Shanghai Jiao Tong University Sichuan Research Institute
5-17	Uncertainty Evaluation of Three-Dimensional Optical Flow Technique Based on Bootstrap	Wenqi Men, Chen Ling, Yue Wu, Yu Gao	Beijing Institute of Technology
5-18	2D-Supervised Fast Neural Volume Tomography Reconstruction Technique for Time-Resolved Volumetric Flame Reconstruction	Gang Xun, Fuhao Zhang, Weixuan Zhang, Shuicheng Gong, Min Xu, Xuesong Li	Shanghai Jiao Tong University
5-19	Numerical Study on Transient Soot Evolution of Diesel-Like Sprays Based on a Parcel Tracing Methodology	Gao Wenli, Tiemin Xuan, Zhizhao Shi, Hesheng Bao, Zhixia He, José M. García-Oliver	Jiangsu University, Eindhoven University of Technology, Jiangsu University, Polytechnic University of Valencia
5-20	Two-Way Coupled Simulations of Gas-Droplet Flows with Phase Exchange Based on the Fully Lagrangian Approach	Chris Stafford, Oyuna Rybdylova	Iowa State University, University of Brighton
5-21	Effect of Spray Nozzle Shape on Gasoline Direct Injection (GDI) Injector Spray Characteristics	SeungHo Yang, Sungwook Park	Hanyang University
5-22	Near-Nozzle Spray Characteristics of Metal-Gas Atomization: Insights from Direct Numerical Simulations	CesarI.Pairetti, StéphaneZaleski	Sorbonne University, National University of Rosario (UNR), University Institute of France
5-23	Numerical Evaluation of Flow Characteristics in Electrostatic Rotary Bell Sprayer (Erbs) Using Vof-Dpm Model	Shankar Kaira, Rohitkumar Sonawane, Vivek Kumar, Shujun Song	Ansys Inc.
5-24	Understanding Self-Pulsation Dynamics in Swirl Coaxial Injectors via Numerical Analysis	JiwonLee, HadongJung, KyubokAhn	Chungbuk National University
5-25	Effect of Droplet Charge on Spray Painting Processes by Using a High-Speed Rotary Bell with Internal Charging	Q. Ye, O. Tiedje, J. Domnick, B. Shen	Fraunhofer Institute for Manufacturing Engineering and Automation, University of Applied Sciences
5-26	Numerical Characterization of the Spray Produced by a Simplex Pressure-Swirl Atomizer through a Droplet Detection Algorithm and a Curvature-Based Approach	Carreres M, Muñoz-Agulló A, Vegad C, Huang L, Pastor JM, Salvador FJ, Demoulin FX	Polytechnic University of Valencia, University of Rouen Normandy
5-27	Near Field Study of the External Flow of a Pressure-Swirl Atomizer through High-Fidelity DNS-like Modelling	F.J. Salvador, P. Martí-Aldaraví, M. Carreres, A.Lozano	Polytechnic University of Valencia
5-28	Primary Atomization Characteristics of a Novel Bi-Swirl Pintle Injector	Rachit Bundiwal, Abhishek Goyal, Harshit Beri, Shanmugasdas K.P.	Indian Institute of Technology Jammu, Delhi Technological University
5-29	Supercomputing of Liquid Ammonia Atomization Characteristics in Swirl Injector Nozzle	Jun Ishimoto	Tohoku University
5-30	Numerical Study on Film Breakup in Pintle Injectors with Different Double-Rows Slot Arrangements	Tinglan Tang, Tai Jin, Gaofeng Wang	Zhejiang University

6-1	Numerical Simulation of Drop Array Impingement onto a Superheated Wall	Henrik Sontheimer, Johannes Kind, Peter Stephan, Tatiana Gambaryan-Roisman	Technical University of Darmstadt
6-2	Methodology to Compute Spray Cooling in the Nucleate Boiling Regime	Nilojendu Banerjee, Cameron Tropea, Satyanarayanan Seshadri	Indian Institute of Technology, Technical University of Darmstadt
6-3	Modeling on Wall Wetting Phenomenon in Coaxial Twin-Fluid Atomizer	Rena Majima, Akira Sou, Yoshitaka Wada, Yoshiharu Ueki	Kobe University, Mazda Motor Corp.
6-4	Solvent Effect on the Synthesis of Zirconia Nanoparticles via Flame Spray Pyrolysis	Pedro Bianchi Neto, Fabio Henrique Bastiani, Malte F. B. Stodt, Udo Fritsching, Dirceu Noriler	University of Campinas, Leibniz Institute for Materials Engineering - IWT, University of Bremen
6-5	Large Eddy Simulation of Atomization and Phase Change of Liquid Ammonia Spray	Yanzhi Zhang, Chentao Chu, Zihe Liu, Ming Jia	Dalian University of Technology
6-6	An Extended Kh-Rt Relaxation-Breakup Model for Eulerian-Lagrangian Simulation of Two-Phase Detonation	Wenhao Wang, Miao Yang, Zongmin Hu, Peng Zhang	Chinese Academy of Sciences, City University of Hong Kong
6-7	Influence of Spray Characteristics on Inter- and Intra-Particle Coating Uniformity in a Wurster Fluidized Bed	Zhaochen Jiang, Guo Chen, Delong Ji, Rongyi Zhang, Andreas Bueck, Zhixia He	Jiangsu University, Chans Technology (Jiangsu)Inc., Friedrich-Alexander University Erlangen-Nuremberg
6-8	Development and Analysis of Atomization Databases from High-Fidelity Simulations	Brendan Christensen, Alex McCleary, Brittany Fasy, Mark Owkes	Montana State University
6-9	Modeling Approach and Simulations of Mechanical Wall Stress Caused by Thermal-Spray Impacting Hot Surfaces	Sayop Kim, Haris Mehraj, Taehoon Han, Tonghun Lee, Kenneth S. Kim, Chol-Bum M. Kweon, Je Ir Ryu	New York University Abu Dhabi, University of Suwon, University of Illinois at Urbana-Champaign, Combat Capabilities Development Command Army Research Laboratory, New York University
6-10	Progress on Surface Curvature Analysis for Describing Atomization: Experiment and Simulation	L.Huang, C.S. Vegad, B. Duret, J. Reveillon, F.X. Demoulin	University of Rouen Normandy
6-11	Visualization Study on Hydrogen Jet Characteristics of an Outward-Opening Injector Based on Schlieren Imaging	Longbiao Hu, Zhijun Wu, Chaoqun Hu, Haie Chen, Jing He, Liguang Li, Jun Deng	Tongji University, Foshan Xianhu Laboratory
6-12	Highly Superheated Liquid Jet Injection through Optically Transparent and Laser Drilled Nozzle	Hyunchang Lee, Yejun Han	Kyungnam University
6-13	Combined Heat Transfer Enhancement by Macro-Structured Surface and Electric Field for Electrospray Cooling	Jiameng Tian, Changqiu He, Yiqi Chen, Zhentao Wang, Junfeng Wang, Bin Chen	Jiangsu University, Xi'an Jiaotong University
6-14	Quantitative Experimental Study on Plume-to-Plume Interference of Flash Boiling Sprays	Shuyi Qiu, Shangning Wang, Yijia Zhang, David Hung, Min Xu, Xuesong Li	Shanghai Jiao Tong University
6-15	Flow Visualization of Evaporating Ammonia Spray under Engine-Like Conditions	Shiyan Li, Ning Wang, Tie Li, Run Chen, Ping Yi	Shanghai Jiao Tong University
6-16	Experimental Study on the Characteristics of Under-Expanded High-Pressure Nitrogen Jets Issued from a Micro-Orifice	Jiahui Lang, Lubing Xu, Yanfei Li, Shijin Shuai	Tsinghua University
6-17	Pressurised Metered Dose Inhaler (Pmdi) Spray Development of Different Propellants under the Impact of Orifice Length Variation	Lingzhe Rao, Hui Xin Ong, Ben Myatt, Phil Cocks, Stephen Stein, Paul Young, DanielJ Duke	Monash University, Woolcock Institute of Medical Research, Macquarie University, Kindeva Drug Delivery
6-18	Study on Characteristics of Methanol Evaporating Spray Based on Empirical Formulas and Similarity Theory	Pengbo Dong, Changhong Ma, Yifan Zhang, Yang Wang, Wuqiang Long	Dalian University of Technology
6-19	Interface-Resolved Direct Numerical Simulation of Droplet Evaporation in Turbulence	Changxiao Shao, Kun Luo	Harbin Institute of Technology, Zhejiang University
6-20	Magnus Effects of a Self-Spin Moving Droplet	Zhiyuan Niu, Haoji Qiu, Chengming He, Zhixia He	Jiangsu University
6-21	A Comparative Study of Dual-Scale LES and AMR-LES-DNS to Model Normal Propagating Phase Interfaces in Turbulence	Nihar Rameshbhai Thakkar, Marcus Herrmann	Transport and Energy Arizona State University Tempe
6-22	Numerical Simulation of Liquid Breakup on the Pin Packing of Rotating Packed Bed	Jakub Elcner, Ondrej Hajek, Miroslav Jicha	Brno University of Technology
6-23	Effects of Shape Oscillations on Grouping in CFD Simulations of Ellipsoidal Droplet Streams	D. Katoshevski, A. Arad, V. Vaikuntanathan, M. Ibach, R. Bar-On, M. Kumar, J. B. Greenberg, B. Weigand	Ben-Gurion University of the Negev, Shiv Nadar Institution of Eminence, University of Stuttgart, Technion – Israel Institute of Technology
6-24	Numerical Study of the Unsteady Drag and Deformation of a Droplet Accelerated by Uniform Gas Flow	Ying Zhang, Yongjie Chen, Yan Bai, Chunchun Chu, Fei Qi, Xi Xia	Shanghai Jiao Tong University
6-25	Semi-Lagrangian Pressure Solver for Accurate, Consistent, and Conservative Volume-of-Fluid Simulations	Julian Fox, Mark Owkes	Montana State University
6-26	Numerical Method for the Binary Droplet Collision Outcome Prediction with Rarefied Gas Effects and Van Der Waals Force	Ning Wang, Zhenyu Zhang, Peng Zhang, Changlu Zhao	Beijing Institute of Technology, City University of Hong Kong
6-27	A Numerical Approach to the Study of the Evaporation of Anoscillating Droplet under Unsteady Conditions	Y. Hu, S. Tonini, B. Weigand, G.E. Cossali	Department of Engineering and Applied Science, Institute of Aerospace Thermodynamics
6-28	Numerical Study on Cavitation Flow Coupled with Thermal Effects under Ultra-High Pressure within the Nozzle	Chuqiao Wang, Rui Hua, Yuanyuan Shen, Wei Du, Wei Guan, Zhixia He, Manolis Gavaises	Jiangsu University, University of London

M1-1	Hydrogen Production by Ultrasonic Spray-Assisted Methanol Steam Reforming Catalyzed by Molybdenum Carbide/Copper-Zinc	Shang-RongKuo, Po-HanLin, Wei-Hsin Chen, Yi-Kai Chih	National University of Tainan, National Cheng Kung University, Tunghai University, National Chin-Yi University of Technology
M1-2	Flow Characteristics of Premixed Flame on Ac Electric Fields Using Schlieren Method	Taehun Kim, Minseok Kim, Boyun Kim, Ilsong Kwon, Jeongho Kang, Hyemin Kim	Korea National University of Transportation
M1-3	Heating Behaviours of a Single Droplet of Sewage Sludge / Waste Polypropylene Pyrolysis Oil and Heavy Fuel Oil	Tzu-Chiao Yin, Tzu-Ching Lin, Guan-Bang Chen, Fang-Hsien Wu	National Cheng Kung University
M1-4	Design and Analysis of Spark-Generated Bubbles in a View Cell	Vibhav Vidyadhar, Kaushik Nonavinakere Vinod, Xiaoning Jiang, Tiegang Fang	North Carolina State University
M1-5	Effects of Copper and Titanium-Based Catalysts on the Conversion of Biomethanol into Hydrogen-Rich Gases	Yi-RouSun, Jing-JieWang, Wei-Hsin Chen, Yi-Kai Chih	National University of Tainan, National Cheng Kung University, Tunghai University, National Chin-Yi University of Technology
M1-6	Precise Control of Sodium Alginate Microdroplets through Ph-Sensitive Cross-Linkers and Geometric Factors	Alireza Rezvani, Mehrnaz Oveysi, Mohammad Mahdi Karim khani, Vahid Bazargan, Marco Marengo	University of Tehran, University of Pavia
M1-7	Visualization of Flame Jet During Thermal Runaway in Pouch-Type Lithium-Ion Battery Cell	Inhan Sim, Sungwook Park	Graduate School of Hanyang University, Hanyang University
M1-8	Numerical Study on Metallic Droplet Deformation and Breakup Related to Particle Morphology during Gas Atomization	Xing-gang Li, Peng Wang, Xiang-lin Zhou	Southern University of Science and Technology, China Machinery Institute of Advanced Materials (Zhengzhou) Co., Ltd, University of Science and Technology Beijing
M2-1	Investigation on Cavitation Enhancement on Flash Boiling Atomization Using Two-Dimensional Slit Nozzles	Yijia Zhang, Shangning Wang, Shuyi Qiu, David Hung, Xuesong Li, Min Xu	Shanghai Jiao Tong University
M2-2	Investigation on Flash Boiling Phase Change Characteristics of Two-Dimensional Slit Nozzles Using Backlit Light Attenuation with Multi-Component Fuels	Yilong Li, Shangning Wang, Yijia Zhang, Xuesong Li, David Hung, Min Xu	Shanghai Jiao Tong University
M2-3	Experimental Study on the Injection Characteristics of Rp-3 Aviation Kerosene and Diesel Blended Fuels	Wei Du, Chuqiao Wang, Tianyu Jin, Zixu Wu, Fuqiang Luo, Zhixia He	Jiangsu University
M2-4	CFD Study of Sdpf Flow Characteristics According to Variations in Urea Injection Strategy and Device Design	JianjunZhao, HyowonBang, GiyoungPark, SeangwockLee	Kookmin University
M2-5	Study of Methanol Fuel Cavitation Flow inside the Injector Nozzle and Its Effects on Spray Characteristics	Shengnan Zhang, Bihe Hu, Chen Li, Zhixia He	Jiangsu University
M2-6	Spray Characteristics of Centrifugal Atomizer in Unmanned Aerial Spray Systems	Venkatesha, C M Ajay, Surendra Kumar Soni, Surya PrakashR	Indian Institute of Technology, Indian Institute of Science
M2-7	Spray Liquid Sheet Dynamic Analysis in Hollow Cone Agricultural Nozzle	Mehrzad AnsariPour, Youssef G.N. Ahmed, Reza Alidoost Dafsari, Chun Gu Lee, Seung-Hwa Yu, Jeekeun Lee	Jeonbuk National University, National Institute of Agricultural Science
M2-8	Experimental Research on the Effect of the Flow inside the Air-Induction Nozzle on the Spray Characteristics	Chen Gong, Can Kang	Jiangsu University
M2-9	Characterization of Flat Fan Nozzle in Unmanned Aerial Vehicles	Venkatesha, C M Ajay, Surendra Kumar Soni, Prasad Boggavarapu, Surya Prakash R	Indian Institute of Technology, Indian Institute of Science
M2-10	Large Eddy Simulation of Trans/Supercritical Spray Using Equilibrium Thermodynamics Combined with Artificial Neural Network	Heng Liu, Zongyu Yue, Hongyan Zhu, Song Cheng, Mingfa Yao	Tianjin University, Wuxi Fuel Injection Equipment Research Inst., The Hong Kong Polytechnic University
M2-11	Deep Learning Analysis of Spray Particles Injected from Twin-Fluid Atomizer into Crossflow	W. Xing, S. Raut, Y. Deng, K. Sato, Y. Ogata, K. Nishida	Yamagata University, Hiroshima University
M2-12	A Deep-Learning-Based Phase Change Model for Injection Flow Modelling	Chenxiang Zhao, Hengjie Guo	Northwestern Polytechnical University

Detailed Information for Posters

Number	Author	Title	Affiliation
P-1	Milan Maly	Effect of Bubble-Breaker Geometry on Spray Parameters of Effervescent Atomizer: Preliminary Study	Brno University of Technology
P-2	Ziguang Li	Spray Characteristics of a Gas-Liquid Pintle Injector	National University of Defense Technology
P-3	Pengjin Cao	Effect of Gas-Liquid Ratio on Spray Characteristics of Gas-Liquid Swirl Coaxial Injectors	National University of Defense Technology
P-4	Damien Thomas	Enhancing Spray Cooling Efficiency: Investigating Water Film Clogging and Influential Parameters in Heat Exchangers	Sorbonne University
P-5	Bin Wu	High-Speed Raman Scattering for Hydrogen Jet Characterization Issued from a Hollow-Cone Piezo	King Abdullah University of Science and Technology
P-6	Songtao Guo	On Simulating Gasoline/Iso-Butanol Mixture Droplet Combustion	Cornell University
P-7	Junseo Jo	Analysis of NO _x Characteristic of Light-Duty Vehicle according to Ambient Temperature	Korea National University of Transportation
P-8	Namyeol Park	A Study on Emission Characteristics of NO _x from Diesel Vehicle according to Road Gradients under Real-World Driving Conditions	Korea National University of Transportation
P-9	Han Wenyu	A Three-Dimensional Diagnosis Method for Morphological and Diffusional Characteristics of Smoke Aerosols based on Absorption Spectrum Tomography Reconstruction	Shanghai Jiao Tong University
P-10	Junsun Lee	Effect of Excess Air Ratio on Combustion and Emissions in Spark-Ignition Engines Using Natural Gas and Hydrogen	Korea Institute of Machinery and Materials
P-11	Shen-En Hsu	Analysis of Combustion Characteristics of Bio-Slurry	National Cheng Kung University
P-12	Walter Schaefer	Particle Characterization by Analyzing Light Scattering Signals With a Machine Learning Approach	AOM-Systems GmbH
P-13	Jingjing Liao	Numerical Study on the Spray and Combustion Characteristics of Liquid-Gas Pintle Injector	National University of Defense Technology