Program of the 27th ILASS-Japan Symposium

Venue

50th Anniversary Memorial Hall, Tsushima Campus, Okayama University

https://www.okayama-u.ac.jp/tp/profile/50kinenkan02.html

https://www.okayama-u.ac.jp/tp/access/index.html : Japanese website

https://www.okayama-u.ac.jp/eng/access_maps/index.html : English website

https://www.okayama-u.ac.jp/eng/access_maps/Tsushima_Campus.html

Invited Lecture

December 17 (Monday) 15:20～16:20 Room A

[Chair : Nobuyuki KAWAHARA (Okayama Univ.)]

「Study on Dual-Fuel Combustion and Emission Characteristics in Internal Combustion Engine」

Prof. Suhan Park (Chonnam National University)

Banquet

December 17 (Monday) 18:00 ～ 19:30

Venue : Peach Cafeteria 3rd floor, Coop Peach Union, Okayama University

(https://www.okadai.coop/site/facility/peach.html)

Table of Lectures and Technical Sessions

December 17 (Monday)

Time	Room A	Room B
9:20—	Registration	
10:20—10:30	Opening Ceremony (Room A)	
10:30—11:45	A11:Combustion and Flame (GS) Chair : XXXX(XXXX)	B11:Atomization Mechanism I (GS) Chair : XXXX(XXXX)
11:45—13:20	Lunch	
13:20—15:00	A12: Wall Impingement (GS) Chair : XXXX(XXXX)	B12:Atomization Mechanism II (GS) Chair : XXXX(XXXX)
15:00—15:20	Break	
15:20—16:20	Invited Lecture (Room A) 「Study on Dual-Fuel Combustion and Emission Characteristics in Internal Combustion Engine」 Prof. Suhan Park (Chonnam National University)	
16:20—16:40	Break	
16:40—17:30	ILASS-Japan General Assembly Meeting (Room A)	
18:00—19:30	Banquet	

December 18 (Tuesday)

Time	Room A	Room B
9:00—	Registration	
9:30—10:45	A21:Diesel Spray I (GS) Chair : XXXX(XXXX)	B21:Atomization in Aerospace (GS) Chair : XXXX(XXXX)
10:45—11:00	Break	
11:00—12:15	A22:Diesel Spray II (GS) Chair : XXXX(XXXX)	B22:Fuel (GS) Chair : XXXX(XXXX)
12:15—13:30	Lunch	
13:30—15:10	A23:Internal Flow and Cavitation (GS) Chair : XXXX(XXXX)	B23:Model and Design (GS) Chair : XXXX(XXXX)
15:10—15:20	Break	
15:20—15:40	Award Ceremony of Best Presentation (Room A)	

Program of Technical Sessions

【General Report】, (Prompt Report), *Speaker
Presentation 15 min / Question 10 min

December 17 (Monday)

A11 : Combustion and Flame (GS)　10:30-11:45　Room A

Chair : XXXX(XXXX)

【A-111】 Modeling of Wall Heat Transfer between Flat Plate and Impinging Spray Flame
*Ko FUJIWARA (Kobe Univ.), Tsukasa HORI (Osaka Univ.), Makoto TSUBOKURA (Kobe Univ.)

【A-112】 Numerical Simulation of a Laminar Counter Flow Kerosene Surrogate Spray Flame with a Multi-Component Fuel Droplet Evaporation Model
*Nozomu HASHIMOTO (Hokkaido Univ.), Yushin NAITO, Kinya SAITO (Numerical Flow Designing Co.,Ltd.), Jun HAYASHI (Kyoto Univ.), Noriaki NAKATSUKA (Osaka Univ.), Fumiteru AKAMATSU

【A-113】 Effect of Droplet Diameter Distribution in Water Emulsified Jatropha Oil to Diesel Engine Performances
*Taiga NAKAMURA (Kobe Univ.), Kento YOKOI, Ryoichi OTA, Ichiro ASANO, Tomohisa DAN

A12 : Wall Impingement (GS)　13:20-15:00　Room A

Chair : XXXX(XXXX)

【A-121】 Effects of Impingement Wall Temperature on Velocity of Diesel Spray after Impingement on a Wall
*Shuichi SHIBOTA (Gunma Univ.), Yoshio ZAMA, Tomohiko FURUHATA

【A-122】 Effects of Ambient Conditions on Vaporization Characteristics of High Pressure Gasoline Sprays Impinging on a Wall
*Ryosuke HARA (Mazda Motor Corp.), Wu ZHANG, Tatsuya FUJIKAWA, Masahisa YAMAKAWA, Tomohiro WATANABE (Hiroshima Univ.), Yukihiko ICHIKAWA, Keiya NISHIDA, Yoichi OGATA

【A-123】 Film Formation of Fuel Spray Impinging on a Hot Surface
*Yoshiki KOMURO (Tokyo Denki Univ.), Yoshihiro KOBAYASHI, Masataka ARAI

【A-124】 Quantitative Evaluation of Liquid Film Formation Process from DISI Injector Using Laser Induced Fluorescence
*Yasutaka TOMOMATSU (Okayama Univ.), Nobuyuki KAWAHARA, Eiji TOMITA

B11 : Atomization Mechanism I (GS)　10:30-11:45　Room B

Chair : XXXX(XXXX)

【B-111】 Spray Characteristics of Atomized Liquid Jet in a Sheet Cross Flow
*Satoru HIMORI (Hirosaki Univ.), Takahiro OKABE, Minori SHIROTA, Takao INAMURA, Masatoshi DAIKOKU (Hachinohe Inst. of Tech.), Yasuhiro SAITO (Tohoku Univ.), Yohsuke MATSUSHITA, Hideyuki AOKI, Junichi FUKUNO (HONDA Engineering, Co. Ltd.)

【B-112】 Breakup Processes of Liquid Jets in Crossflows
*Atsushi SHINODA (Hyogo Prefectural Univ.), Naohisa TAKAGAKI, Wataru MAEDA, Ryoichi KUROSE (Kyoto Univ.), Satoru KOMORI (JAMSTEC), Hiroshige KUMAMARU (Hyogo Prefectural Univ.)

【B-113】 Study on Oil Jet Behavior and Breakup Process of Oil Jet Ejected from Curved Pipe
*Goichi NITTA (Hiroshima Univ.), Akira NAKASHIMA, Keita MIMURA, Keiya NISHIDA, Hitoshi HONGOU (Mazda Motor Corp.), Hideaki YOKOHATA, Yoichi OGATA (Hiroshima Univ.)

B12 : Atomization Mechanism II (GS) 13:20-15:00 Room B

Chair : XXXX(XXXX)

(B-121) Behaviors of Internal Flow and Spray of Twin-Fluid Atomizer (1st Report, High-Speed Video Camera Observation Using Transparent Atomizer)
*Daiki KAWAGASHIRA (Hiroshima Univ.), Wenging XING, Kazuaki HASHIGUCHI (Mitsubishi Heavy Industries, Ltd.), Kazunori SATO (Mitsubishi Hitachi Power Systems, Ltd), Keiya NISHIDA (Hiroshima Univ.)

【B-122】 Time Variation of Breakup Characteristics of Liquid Film in Prefilming Airblast Atomizwer
*Haruki NISHIKAWA (Hirosaki Univ.), Toshihiro SAKAKI, Takahiro OKABE, Minori SHIROTA, Takao INAMURA

(B-123) Numerical Simulation of Liquid Jet Atomization in Crossflow using Eulerian-Lagrangian Method
*Akihiro NAKANISHI (Kyoto Univ.), Jen WEN, Ryoichi KUROSE

【B-124】 Modeling of Liquid Fuel Atomization in a Cross-flow using Detailed Numerical Simulation
*Taisuke NAMBU (JAXA), Yasuhiro MIZOBUCHI

December 18 (Tuesday)

A21 : Diesel Spray I (GS) 9:30-10:45 Room A

Chair : XXXX(XXXX)

【A-211】 Modeling of Diesel Spray Impinging Behavior on Oil Film (2nd Report, Characteristics of Small-quantity Spray in Post Injection)
*Hiroki KAMBE (Doshisha Univ.), Eriko MATSUMURA, Takaaki KITAMURA (Japan Automotive Research Institute)

【A-212】 A Study on Fuel Spray Features in Diesel Engine (Effects of Nozzle Hole Diameter on Macro Features and Internal Structures of Spray)
*Kohsuke NISHIURA (Doshisha Univ.), Eriko MATSUMURA, Jiro SENDA

【A-213】 Experimental Analysis on Internal Flow and Performance of a Large-Scaled Diesel Nozzle with Needle Lifting
*Kouya YAHIRO (Tottori Univ.), Kouki ISHIDA (Kobelco Construction Machinery Co., Ltd.), Asumi SHODA (Tottori Univ.), Tetsuya ODA, Taizo KITADA (Mitsubishi Motors Corp.), Takahiro SUMI (Saga Univ.), Katsuyuki OHSAWA (Tottori Univ.),

A22 : Diesel Spray II (GS) 11:00-12:15 Room A

Chair : XXXX(XXXX)

【A-221】 PIV Measurement of Entrainment Process of Diesel Spray and High-Pressure Gas Jet
*Hideyuki MURODUMI (Kyushu Univ.), Hiroshi TASHIMA, Daisuke TSURU

【A-222】 Study of Breakup and Dispersion of Droplets inside Unsteady Sprays by L2F
*Yoshiki AKIYAMA (Nagasaki Univ.), Keisuke KOMADA (Fukuoka Inst. Tech.), Hironobu UEKI (Nagasaki Univ.)

【A-223】 Time-Resolved Mixture Concentration Distribution Measurement of Diesel Spray with High Speed Tracer LAS Technique
*Shinichi KAKAMI (Hiroshima Univ.), Jaeheun KIM, Tomoya SHIWAKU, Keiya NISHIDA, Yoichi OGATA, Hiroyasu SASAKI (nac Image Technology Inc.)

A23 : Internal Flow and Cavitation (GS) 13:30-15:10 Room A

Chair : XXXX(XXXX)

【A-231】 The Effects of Needle Valve Motion on Transient Flow in Fuel Injector and Liquid Jet
*Kohei MATSUKAMI (Kobe Univ.), Song GAO, Rubby PRASETYA, Makoto MIWA, Akira SOU, Yoshitaka WADA (Mazda Motor Corp.), Yoshiharu UEKI, Hideaki YOKOHATA

【A-232】 X-ray Measurement of Local Liquid Velocity and Volume Fraction in Cavitation Flow inside a Nozzle
*Ayumi NISHIHARA (Kobe Univ.), Kazuya KOTANI, Rubby PRASETYA, Makoto MIWA, Akira SOU, Moon SEOKSU (Inha Univ.), Yoshitaka WADA (Mazda Motor Corp.), Yoshiharu UEKI, Hideaki YOKOHATA

【A-233】 Numerical Simulation Model of Cavitation Flow in a Nozzle of Fuel Injector
*Yuta OKUNAKA (Kobe Univ.), Masaki YAMAMOTO, Akira SOU, Yoshitaka WADA (Mazda Motor Corp.), Yoshiharu UEKI, Hideaki YOKOHATA

【A-234】 Visualization Analysis of Flow in Actual Gasoline Nozzle and Spray Formation
*Tomohiro HAYASHI (SOKEN, Inc.), Noritsugu KATO (DENSO Corp.)

B21 : Atomization in Aerospace (GS) 9:30-10:45 Room B

Chair : XXXX(XXXX)

【B-211】 On The Spray Width of Unlike-Impinging Jets
*Chihiro INOUE (Kyushu Univ.), Go FUJII (JAXA), Yu DAIMON

【B-212】 Extending Lean Operation Range of the Pilot Injector of an Aero Engine Coaxial Staged Burner with Lean Premixed Main Combustion Zone
*Shun HANAJIMA (Hosei Univ.), Ginji MATSUOKA, Tatsuya KASAHARA, Shigeru HAYASHI

【B-213】 Particle Size Measurement of High Pressure Superheated Water Jet by Liquid Immersion Method
*Ryo OKUMA (Tokyo City Univ.), Rikio WATANABE,

B22 : Fuel (GS) **11:00-12:15 Room B**

Chair : XXXX(XXXX)

【B-221】 Diesel Engine Performance with Mixed Fuel Consist of Heavy Fuel Oil and Dimethyl Ether
*Takashi SUZUKI (Kobe Univ.), Yu MIHARA, Kenta KUWAOKA, Tomoki SHIRAHAMA, Ichiro ASANO, Tomohisa DAN

【B-222】 Numerical Simulation of Secondary Atomization by Explosive Boiling of Emulsion Fuel for a Free Droplet and a Sessile Droplet on a Wall
*Daisuke TANIMOTO (SHIMANE Univ), Junji SHINJO

【B-223】 Effect of Fuel Compositions and Injection Conditions on Particulate Emissions in a DI Gasoline Engine
*Ankur GUPTA (Chiba Univ.), Tatsuya KUBOYAMA, Yasuo MORIYOSHI, Takuya TAKEDA (Nihon Univ.), Kazuhiro AKIHAMA

B23 : Model and Design (GS) **13:30-14:45 Room B**

Chair : XXXX(XXXX)

【B-231】 The Method of Diesel Injector Nozzle Flow Coefficient
*Takanobu AOCHI (SOKEN, Inc.), Tsukasa YAMASHITA

【B-232】 Development of Quantitative Fitting Method of Spray Model Parameters Using Image Correlation Method
*Kazunao TAKAHASHI (IDAJ Co., LTD.)

【B-233】 Deposition Characteristics of Aerosol Particles in Airway Replica
*Keisuke KUDO (Hirosaki Univ.), Takeshi MONORI, Sayaka FUJII, Minori SHIROTA, Yuki KASAMATSU, Takahiro OKABE, Takao INAMURA