

Date	Sessin Name	Room	JSAE PaperNo	SAE PaperNo	Paper Title	Authors	Country
29-Aug	OS1:Application of Alternative Fuels Reducing CO2	Room B	20239067	2023320001	Capturing Combustion Chemistry of Carbon-Neutral Transportation Fuels with a Library of Model Fuels	Karthik V. Puduppakkam, Ellen Meeks (Ansys Inc.)	United States
29-Aug	OS1:Application of Alternative Fuels Reducing CO2	Room B	20239045	2023320002	Research of Fuel Components to Expand Lean-Limit in Super Lean Burn Condition (Part III)	Taketora Naiki, Yuki Yasutake, Manabu Watanabe, Ken Obata (ENEOS Corporation)	Japan
29-Aug	OS1:Application of Alternative Fuels Reducing CO2	Room B	20239117	2023320003	Effects of Fuel Components on Thermal Efficiency and Emissions in Super Lean Burn S.I. Engine	Naoyoshi Matsubara, Kazuki Kaneko, Koji Kitano, Nozomi Yokoo, Koichi Nakata (TOYOTA MOTOR CORPORATION), Yuki Yasutake, Taketora Naiki, Ken Obata, Manabu Watanabe (ENEOS Corporation)	Japan
29-Aug	OS1:Application of Alternative Fuels Reducing CO2	Room B	20239241	2023320004	Insights into Combustion and Performance of HCCI Engine Fed with PODE1 and H2-Rich PODE1-Reformate	Denis Buntin, Leonid Tartakovsky (Technion – Israel Institute of Technology)	Israel
29-Aug	OS2:CO2 Reduction Technology for Carbon Nerutral of ICE for Various Applications	Room B	20239195	2023320005	Simulation of Charged Species Flow and Ion Current Detection for Knock Sensing in Gasoline Engines with Active Pre-Chamber	Xinke Miao, Shengyi Fei, Jun Deng, Liguang Li (Tongji University), Yinuo Hu, Junjie Ma (Ningbo Geely Royal Engine Components Co., Ltd.)	China
29-Aug	OS2:CO2 Reduction Technology for Carbon Nerutral of ICE for Various Applications	Room B	20239024	2023320006	Study of Knocking Mitigation and Thermal Efficiency Enhancement of Pre-Chamber Jet Combustion in Stoichiometric Gasoline Engine	Hirokazu Ando, Yusuke Shintani, Hiroki Kobayashi, Ryosuke Shiina, Noritaka Kimura (Honda R&D Co., Ltd.)	Japan
29-Aug	OS2:CO2 Reduction Technology for Carbon Nerutral of ICE for Various Applications	Room B	20239069	2023320007	Effects of Pre-Chamber Specifications on Lean Burn Operation in a Pre-Chamber Engine with Fuel Reformed Gas	Fuchao Shen, Masaya Totsuka, Tatsuya Kuboyama, Yasuo Moriyoshi (Chiba University), Toshio Yamada (Sustainable Engine Research Center Co.,Ltd.), Kenichi Shimizu (Hokkaido University), Takashi Yoshida (IHI Corporation)	Japan
29-Aug	OS2:CO2 Reduction Technology for Carbon Nerutral of ICE for Various Applications	Room B	20239144	2023320008	Adapting Dimensionless Numbers Developed for Knock Prediction Under Homogeneous Conditions to Ultra-Lean Spark Ignition Conditions	Tyler Strickland, Dario Lopez-Pintor (Sandia National Laboratories), Naoyoshi Matsubara, Kazuki Kaneko, Koji Kitano (TOYOTA MOTOR CORPORATION)	United States
29-Aug	IC4-1:MBD Engine Systme and Control Part 1	Room C	20239007	2023320009	A Dual-Fuel Model of Flame Initiation and Propagation for Modelling Heavy-Duty Engines with the G-Equation	Federico Perini, Christopher Wright, Rolf D. Reitz (Wisconsin Engine Research Consultants), Kenji Hiraoka, Takafumi Kamino (Yanmar Holdings Co., Ltd.)	Italy
29-Aug	IC4-1:MBD Engine Systme and Control Part 1	Room C	20239263	2023320010	Residual Gas Fraction Measurement and Estimation of the CFR Octane Rating Engine Operating Under HCCI Conditions	Jorge Pulpeiro Gonzalez, Alexander Hoth, Christopher P. Kolodziej, Hee Je Seong (Argonne National Laboratory)	United States
29-Aug	IC4-1:MBD Engine Systme and Control Part 1	Room C	20239187	2023320011	Prediction of Natural Gas Wall-Impingement Spray Characteristics by ANN Model	Quangkhai Pham (Chonnam National University, Konkuk University), Byungchul Choi (Chonnam National University), Suhan Park (Konkuk University)	Korea, Republic Of
29-Aug	IC4-1:MBD Engine Systme and Control Part 1	Room C	20239257	2023320012	Development of Film Heat Transfer Model Based on Multiphase Flow Numerical Analysis	Takeshi Nagasawa, Kenji Uchida, Hiroyuki Yamashita (Mazda Motor Corporation)	Japan
29-Aug	IC1-1:SI Spary Wall Interaction	Room C	20239061	2023320013	Effect of Cross-Flow Velocity on Fuel Adhesion of Flat-Wall Impinging Spray under Triple Stage Split Injection	Penghua Shi, Nguyen Binh Trong, Youichi Ogata, Keiya Nishida (Hiroshima University), Gengxin Zhang (University of Birmingham), Hongliang Luo (Harbin Engineering University)	Japan
29-Aug	IC1-1:SI Spary Wall Interaction	Room C	20239143	2023320014	Investigation on Temporal Change for Adhesion Fuel Mass of DI Gasoline Spray Impinging on a Wall	Yoshio Zama, Hiroto Oishi (Gunma University)	Japan
29-Aug	IC1-1:SI Spary Wall Interaction	Room C	20239021	2023320015	Mixture Formation Process Analysis in Spray and Wall Impingement Spray Under Evaporating Conditions for Direct Injection S.I. Engines	Dai Matsuda, Ippe Kimura, Kanako Nishimura, Eriko Matsumura, Jiro Senda (Doshisha University)	Japan
29-Aug	IC2-1:CI Dual-Fuel Combustion	Room D	20239121	2023320016	PREMIER Combustion of Natural Gas Ignited with Diesel Fuel in a Dual Fuel Engine - Effects of EGR and Supercharging on End-Gas Auto Ignition and Thermal Efficiency	Yoshimitsu Kobashi, Kengo Kishimoto, Nobuyuki Kawahara (Okayama University)	Japan
29-Aug	IC2-1:CI Dual-Fuel Combustion	Room D	20239245	2023320017	A Study of Autoignition and Combustion Characteristics in an HCCI Engine Using a Blended Fuel of DME and City Gas	Reo Yamagiwa, Yusuke Manabe, Shinji Mito, Akira Iijima (Nihon University), Shintaro Yoshihara, Takahiro Yamaguchi, Sekai Miyamoto (Kawasaki Heavy Industries, Ltd.)	Japan
29-Aug	IC2-1:CI Dual-Fuel Combustion	Room D	20239258	2023320018	Investigation of Dimethyl Ether Dual-Fuel Combustion Using Propane and Ethanol as Premixed Fuel	Simon LeBlanc, Linyan Wang, Xiao Yu, Ming Zheng (University of Windsor)	Canada
29-Aug	IC2-2:CI HCCI and PCCI	Room D	20239136	2023320019	Prediction of the Spontaneous Ignition in a GCI Engine Using an Extended Physical Model of the Ignition Delay	Giacomo Silvagni, Vittorio Ravaglioli, Fabrizio Ponti, Davide Moro (University of Bologna), Federico Stola, Matteo De Cesare (Marelli Europe)	Italy

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29-Aug	IC2-2:CI HCCI and PCCI	Room D	20239162	2023320020	Numerical Investigation of Multi-Stage HCCI Combustion with Small Chamber Inside Piston	Takuya Nomura, Yasuo Moriyoshi, Koji Morikawa, Tatsuya Kuboyama (Chiba University)	Japan
29-Aug	IC2-2:CI HCCI and PCCI	Room D	20239215	2023320021	Realization of HCCI Combustion by Internal EGR Using CI Engine with Variable Valve Timing System (First Report)	Masaya Terada, Yo Sumida (Osaka Sangyo University Graduate School), Daisuke Kawano (Osaka Sangyo University)	Japan
29-Aug	IC2-2:CI HCCI and PCCI	Room D	20239193	2023320022	Fuel Consumption Improvement of a New Generation Diesel Engine for Passenger Cars by Quantitative Management of Thermal Efficiency Control Factors and Expansion of Load Range of Premixed Charge Compression Ignition Combustion	Yudai Kato, Takeru Matsuo, Jun Kanzaki, Sang-kyu Kim, Daisuke Shimo, Shinichi Morinaga (Mazda Motor Corporation)	Japan
29-Aug	EC1-1:Testing	Room E	20239068	2023320023	Instability of Emery Oil Particle for 10 nm Engine Exhaust CPC Calibration	Kentaro Kojima, Yoshiko Murashima, Hiromu Sakurai (National Institute of Advanced Industrial Science and Technology (AIST)), Yoshinori Otsuki (HORIBA, Ltd), Kenji Kondo (HORIBA Europe GmbH)	Japan
29-Aug	EC1-1:Testing	Room E	20239101	2023320024	Technical Improvements of Portable Emissions Measurement System for Solid Particle Number Larger than 10 nm	Kenji Kondo, Leonid Japs, Peter Lienerth (HORIBA Europe GmbH), Takahiro Kitahara, Suguru Fukushima, Yoshinori Otsuki (HORIBA, Ltd.)	Germany
29-Aug	EC1-1:Testing	Room E	20239168	2023320025	Development of Indoor Test Cycle for Real Driving Emissions of Light Duty Vehicles	Jeonghyun Park, Byeonghee Choi, Sungwoon Choi, Bada Kim, Chul-Hee Lee, Daeyup Lee (Inha University), Sangil Kwon, Taekho Chung, Jongtae Lee (National Institute of Environmental Research)	Korea, Republic Of
29-Aug	EC1-1:Testing	Room E	20239227	2023320026	Development of On-Board Multi-Component Gas Analyzer Toward Euro 7	Yosuke Kondo, Shota Hamauchi, Yoshihito Kowada, Kyoji Shibuya, Yoshinori Otsuki (HORIBA, Ltd.)	Japan
29-Aug	EC3:Fuel Effects on Emissions	Room E	20239013	2023320027	The Performance of Diesel Engine Oil Using Ashless Anti-Wear Additive and Detergent	Yasunori Shimizu, Yukitoshi Fujinami, Moritsugu Kasai (Idemitsu Kosan Co., Ltd.)	Japan
29-Aug	EC3:Fuel Effects on Emissions	Room E	20239092	2023320028	Impact from a Variety of E10 and E20 Gasoline Formulations on PN10 and PN23 Emissions Evaluated in Combination with Advanced GPF Technology Generations	Ryoko Chijiwa, Dominik Rose, Thorsten Boger (Corning GmbH), Jens Krueger-Venus, Roger Cracknell, Rod Williams (Shell Global Solutions (Deutschland) GmbH; Shell Global Solutions (UK))	Germany
29-Aug	EC3:Fuel Effects on Emissions	Room E	20239147	2023320029	Effects of Oxygenate and Aromatic Content on Engine-Out Aldehyde Emissions from Pure, Binary, and Ternary Mixtures of Ethanol, Toluene, and Iso-Octane	Varun Shankar, Felix Leach (University of Oxford)	United Kingdom
29-Aug	TL2:Engine oil Transport and Oil Consumption	Room F	20239160	2023320030	Development of Oil Behavior Visualization Technology Using X-Ray Computed Tomography	Daisuke Tanaka, Hiroki Fujieda, Junji Ute, Mitsunobu Uchida (SOKEN, INC.), Takeo Matsuo, Masataka Tanase, Yuki Hiura (TOYOTA MOTOR CORPORATION)	Japan
29-Aug	TL2:Engine oil Transport and Oil Consumption	Room F	20239052	2023320031	An Investigation of Oil Supply Mechanisms to the Top of the Liner in Internal Combustion Engines	Mo Li, Xinlin Zhong, Sebastian Ahling, Tian Tian (Massachusetts Institute of Technology)	United States
29-Aug	TL2:Engine oil Transport and Oil Consumption	Room F	20239141	2023320032	Experimental and Modeling Study for Lubricant Oil Consumption in Turbocharged Diesel Engines	Mayumi Matsuno, Masaki Naruke, Takaaki Kitamura (Japan Automobile Research Institute)	Japan
29-Aug	TL2:Engine oil Transport and Oil Consumption	Room F	20239077	2023320033	A Study on the Mechanism of Piston Ring Rotation of an Engine	Kaito Kanemoto, Akemi Ito (Tokyo City University)	Japan
29-Aug	TL2:Engine oil Transport and Oil Consumption	Room F	20239030	2023320034	Maximizing Engine Oil Fuel Efficiency in the Same SAE Grade without Compromising Oil Consumption - An Investigation into the Relationship between Noack Evaporation and Oil Consumption in State-of-the-Art Turbocharged Gasoline Engines	Michael Seemann, Sabrina Strube, Phil Hutchinson, Boris Eisenberg, Helmut Melchior, Jens Markwart, Stephanie Kempf (Evonik Operations GmbH), Thomas Schimmel (Evonik Specialty Chemicals), Masahito Mori (Evonik Japan Co., Ltd.)	Germany
29-Aug	TL3-1:Additives and its effects on Engine Systems Part 1	Room F	20239083	2023320035	Understanding Degradation of Engine Oil Additives and Its Effect on Abnormal Combustion in a Gasoline Engine	Hisanari Onouchi, Isao Tanaka (Chevron Japan Ltd), Ian Elliott, Nicole Ketterer (Chevron Oronite Company LLC)	Japan
29-Aug	TL3-1:Additives and its effects on Engine Systems Part 1	Room F	20239123	2023320036	Low Ash SP/GF-6 Fuel Eco Gasoline Engine Oil	Naohiro Yamada, Seiichi Nakano, Yusuke Koike, Rika Suzuki, Sachiko Okuda (Nissan Motor Co., Ltd.), Shozaburo Konishi (ENEOS Corporation)	Japan
29-Aug	HY5-1:Hydrogen Combustion Part 1	Room G	20239186	2023320037	A Study on Developing MPI Hydrogen ICE over 2MPa BMEP for Medium Duty Vehicles	Daisuke Hiyama, Akemi Ito, Koichi Nishibe, Satoru Nozaki, Yoshinori Nanba (Tokyo City University), Takuya Yamaura (Flatfield), Keiso Takeda (Enable), Ryuichi Sasaki (Riken), Kaname Naganuma (Kanazawa Institute of Technology)	Japan
29-Aug	HY5-1:Hydrogen Combustion Part 1	Room G	20239084	2023320038	Component and Combustion Optimization of a Hydrogen Internal Combustion Engine to Reach High Specific Power for Heavy-Duty Applications	Ralf Meske, Klaus Schmidt, Hiroyuki Shiba, Rainer Capellmann, Mario Retzlaff (Tenneco Group), Pascal Zimmer, Aleksandar Boberic, Stefan Pischinger (RWTH Aachen University), Lukas Virnich (FEV Europe GmbH)	Germany

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29-Aug	HY5-1:Hydrogen Combustion Part 1	Room G	20239062	2023320039	Analysis of the Effect of Hydrogen Combustion Characteristics on Engine Performance	Yoshihisa Tsukamoto, Shiro Tanno, Yoshinori Miyamoto, Hiroyuki Sakai, Tetsuo Omura, Daishi Takahashi (TOYOTA MOTOR CORPORATION)	Japan
29-Aug	HY5-1:Hydrogen Combustion Part 1	Room G	20239071	2023320040	Numerical Simulation of Effects of Operating Parameters on Combustion in a Hydrogen Direct Injection Engine	Fu Zhen, Gao Wenzhi, Zhao Duanzheng (Tianjin University), Li Yuhuai (GAC Research and Development Center)	China
29-Aug	HY5-2:Hydrogen Combustion Part 2	Room G	20239181	2023320041	Active Pre-Chamber as a Technology for Addressing Fuel Slip and its Associated Challenges to Lambda Estimation in Hydrogen ICEs	Nathan Peters, Michael Bunce (Mahle Powertrain LLC)	United States
29-Aug	HY5-2:Hydrogen Combustion Part 2	Room G	20239240	2023320042	Characterization of Gaseous and Particle Emissions of a Direct Injection Hydrogen Engine at Various Operating Conditions	Victor Berg, Lucien Koopmans, Jonas Sjöblom, Petter Dahlander (Chalmers University of Technology)	Sweden
29-Aug	HY5-2:Hydrogen Combustion Part 2	Room G	20239106	2023320043	Hydrogen Combustion Using Port-Fuel Injections in a Heavy-Duty Optical Diesel Engine Converted to Spark Ignition Operation	Niraj Panthi, Priybrat Sharma (King Abdullah University of Science and Technology), Abdullah S. AlRamadan, Emre Cenker (Saudi Aramco), Gaetano Magnotti (King Abdullah University of Science and Technology)	Saudi Arabia
29-Aug	HY5-2:Hydrogen Combustion Part 2	Room G	20239133	2023320044	Impact of Mixture Inhomogeneity and Ignition Location on Early Flame Kernel Evolution in a Direct-Injection Hydrogen-Fueled Heavy-Duty Optical Engine	J. Laichter, S. A. Kaiser (University of Duisburg-Essen), R. Rajasegar, A. Srna (Sandia National Laboratories)	Germany
30-Aug	OS4:Fuels and Lubricants Behavior Analysis by German and Japanese Collaborative Research	Room B	20239223	2023320045	Clarification of Fuel and Oil Flow Behavior Around the Piston Rings of Internal Combustion Engines - Simultaneous Analysis of Oil Flow Behavior and Oil Emissions during Transient Operation	Michael Stark, Martin Härtl, Malte Jaensch (Technical University Munich), Ann-Christin Preuss, Konstantin Prymak, Gerhard Matz (Institute of Analytical Measurement Technology Hamburg), Marcus Gohl (APL Automobil-Prüftechnik Landau)	Germany
30-Aug	OS4: Fuels and Lubricants Behavior Analysis by German and Japanese Collaborative Research	Room B	20239198	2023320046	Clarification of Fuel and Oil Flow Behaviour Around the Piston Rings of Internal Combustion Engines: Visualization of Oil and Fuel Behaviour by Photochromism in Gasoline Engine Under Transient Operating Conditions	Yuki Kawamoto, Naoki Inoue, Yuto Ito, Akihiko Azetsu, Shun Takahashi, Masayuki Ochiai (Tokai University), Michael Stark, Martin Härtl, Malte Jaensch (Technical University of Munich), Ann-Christin Preuss, Konstantin Prymak, Gerhard Matz (Institute of Analytical Measurement Technology Hamburg)	Japan
30-Aug	OS4:Fuels and Lubricants Behavior Analysis by German and Japanese Collaborative Research	Room B	20239207	2023320047	Clarification of Fuel and Oil Flow Behavior Around the Piston Rings of Internal Combustion Engines - Analysis and Observation of Lubricating Oil Dilution by Post Injection of Diesel Engine Using Oil Sampling and Photochromism Method-	Yuji Mihara (Research Center for High Efficiency Hydrogen Engine and Engine Tribology (HEET), Tokyo City University), Yuya Hirose, Seikou Kyuu, Haruto Nakakouji (Tokyo City University), Masakuni Oikawa, Shuzo Sada (Research Center for High Efficiency Hydrogen Engine)	Japan
30-Aug	HY5-3:Hydrogen Mixture Combustion	Room B	20239019	2023320048	Effect of Different Hydrogen-CNG Supply Method on the Combustion and Emission Characteristics in a SI Engine	Shoi Koshikawa, Yuki Matsuya, Eriko Matsumura, Jiro Senda (Doshisha University), Gin Morita, Toru Nakazono (Yanmar Holdings Co., Ltd.)	Japan
30-Aug	HY5-3:Hydrogen Mixture Combustion	Room B	20239140	2023320049	Numerical Investigation for Carcinogenicity and Mutagenicity Potential of PAHs Emitted from Hydrogen/Diesel Dual-Fuel Engine	Neeraj Kumar Yadav, Mohit Raj Saxena, Rakesh Kumar Maurya (Indian Institute of Technology Ropar, India)	India
30-Aug	IC5-1: Fuel Part 1	Room C	20239002	2023320050	Experimental and Numerical Assessment of Engine Performance Using Cyclopentanone and Anisole as Neat Fuels and as Blends with Gasoline	Patrick Burkardt, Marco Günther, Stefan Pischinger (Mobile Energy Conversion Systems, RWTH Aachen University)	Germany
30-Aug	IC5-1:Fuel Fuel Part 1	Room C	20239063	2023320051	Thermal Efficiency Improvement in Twin Shaped Semi-Premixed Diesel Combustion with a Combustion Chamber Dividing Fuel Sprays and Optimization of Fuel Ignitability	Kazuki Inaba (Kitami Institute of Technology), Yoshimitsu Kobashi (Okayama University), Gen Shibata, Hideyuki Ogawa (Hokkaido University)	Japan
30-Aug	IC5-1:Fuel Fuel Part 1	Room C	20239184	2023320052	Designing High-Performance Fuels Through Graph Neural Networks for Predicting Cetane Number of Multicomponent Surrogate Mixtures	Yeonjoon Kim, Sabari Kumar (Colorado State University), Jaeyoung Cho, Nimal Naser, Peter C. St. John, Robert L. McCormick (National Renewable Energy Laboratory), Wonjong Ko, Seonah Kim (Colorado State University)	United States
30-Aug	IC5-2:Fuel Fuel Part 2	Room C	20239040	2023320053	Mechanism for Internal Injector Deposits Formation in Heavy-Duty Engines Using Drop-in Fuels	Mayte Pach, Henrik Hittig, Romain Couval (Scania CV AB), Henrik Kusar, Klas Engvall (KTH Royal Institute of Technology)	Sweden
30-Aug	IC5-2:Fuel Fuel Part 2	Room C	20239087	2023320054	The Influence of Fluid Properties on Near Nozzle Sprays in Clean and Fouled GDI Injectors	Alex Gander, Guillaume de Sercey, Cyril Crua (Advanced Engineering Centre, University of Brighton)	United Kingdom
30-Aug	IC1-2:SI Combustion Control and Optimaization Part 1	Room D	20239146	2023320055	Research on Super-Lean Burn Spark Ignition Engine with In-Cylinder Water Injection Using Gasoline Surrogate Fuels	Tsuyoshi Nagasawa, Soh Ishibashi, Hidenori Kosaka (Tokyo Institute of Technology)	Japan
30-Aug	IC1-2:SI Combustion Control and Optimaization Part 1	Room D	20239174	2023320056	Research on Wall Temperature of Flame-Wall Interaction Based on Laser-Induced Phosphorescence and Heat Transfer Simulation	Xue Xuefeng, Chen Run, Li Tie, Zhou Xinyi, Cao Jiale, Tang Xin (Shanghai Jiao Tong University)	China
30-Aug	IC1-2:SI Combustion Control and Optimaization Part 1	Room D	20239119	2023320057	Visualization of Combustion and Flow Phenomena in a Methane-Fueled Passive Pre-Chamber Ignited Gas Engine	Md Tanvir Khan, Nobuyuki Kawahara, Yoshimitsu Kobashi (Graduate School of Natural Science and Technology, Okayama University), Towa Hirayama, Ayumi Shimizu, Sekai Miyamoto (Technical Institute, Corporate Technology Division, Kawasaki Heavy Industries, Ltd.)	Japan

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30-Aug	IC1-3:SI Combustion Control and Optimaization Part 2	Room D	20239218	2023320058	Study on Initial Flame Kernel Development and Local Quenching Effect during Spark Ignition Process in a High-Speed Lean Gasoline-Air Turbulent Flow	Fangsi Ren, Shinji Nakaya, Mitsuhiro Tsue (The University of Tokyo)	Japan
30-Aug	IC1-3:SI Combustion Control and Optimaization Part 2	Room D	20239247	2023320059	A Numerical Model for the Virtual Calibration of a Highly Efficient Spark Ignition Engine	Luciano Rolando, Federico Millo, Giuseppe Castellano (Politecnico di Torino), Toni Tahtouh, Mathieu Andre (IFP Energies Nouvelles I.Carnot IFPEN TE), Francesco Bocchieri (FEV Italia s.r.l.)	Italy
30-Aug	IC2-3:CI Combustion Control and Optimization	Room E	20239072	2023320060	Ignition and Combustion Controls of Synthetic Fuel Using Diesel Engine with Variable Valve Timing System [First Report]	Yo Sumida, Masaya Terada , Daisuke Kawano (Osaka Sangyo University)	Japan
30-Aug	IC2-3:CI Combustion Control and Optimization	Room E	20239154	2023320061	Evaluation of Swirl Ratio Effects on the Flow Fields Using Particle Image Velocimetry and Flame Image Velocimetry in a Small-Bore Optical Compression-Ignition Engine	Jinxin Yang, Dongchan Kim, Sanghoon Kook (The University of New South Wales), Kenneth S. Kim, Chol-Bum Kweon (DEVCOM Army Research Laboratory)	Australia
30-Aug	EC2:After Treatment	Room E	20239082	2023320062	New Concept Exhaust Manifold for Next-Generation HEV and PHEV	Hirokazu Ito, Kazuhiko Seguchi, Shigeki Nakayama, Takao Fukuma (TOYOTA MOTOR CORPORATION)	Japan
30-Aug	EC2:After Treatment	Room E	20239125	2023320063	Product Concept and Design Process of an SCR Mixer to Solve Trade-Off Between Urea Mixing Uniformity and Exhaust Loss and to Improve Engineering Efficiency	Masaaki Ashida, Yoshihiro Shiga, Susumu Oyanagi (Marelli Corporation)	Japan
30-Aug	HY5-4:Ammonia Combustion Part 1	Room F	20239197	2023320064	Experimental and Numerical Investigations of Emission Characteristics from Diesel-Ammonia-Fueled Industry Engines	Yusuke Imamori, Tomohiro Takahashi, Hiroyuki Ueda, Satoshi Yamada (Mitsubishi Heavy Industries, Ltd.), Takafumi Tanaka, Ryosuke Kogure (Mitsubishi Heavy Industries Engine & Turbocharger, Ltd.)	Japan
30-Aug	HY5-4:Ammonia Combustion Part 1	Room F	20239049	2023320065	Comparison of the Effect of Diesel and Hydrogen Addition on Ammonia Combustion Characteristics in a Marine Engine	Long Liu, Yue Wu, Yang Wang, Jie Wu (Harbin Engineering University), Xiqing Wang (Shanghai Marine Diesel Engine Research Institute)	China
30-Aug	HY5-5:Fundamentals of Ammonia Combustion	Room F	20239074	2023320066	Combustion of Premixed Ammonia and Air Initiated by Spark-Ignited Micro-Gasoline-Jet in a Constant Volume Combustible Vessel	Wangchao Yu, Minglong Li, Quan Long, Xiongjie Qin, Guangyu Dong, Zongjie Hu, Liguang Li (Tongji University), Jin Qian, Yao Li (Weichai Torch Technology Co., Ltd.)	China
30-Aug	HY5-5:Fundamentals of Ammonia Combustion	Room F	20239260	2023320067	Study on the Image Recognition of Ammonia Ignition Process Induced by Methanol Micro-Jet	Peng Wang, Fuxing Wei, Dongsheng Dong, Pengbo Dong, Xiaolei Zhang, Mingfei Lu, Wuqiang Long, Hua Tian, Jiangping Tian (Dalian University of Technology)	China
30-Aug	xEV2-1:MBD Part 1	Room G	20239058	2023320068	Numerical Assessment of the Performance and Emissions of a Compact Wankel Rotary Engine Applied as a Range Extender on the BMW i3 Model	Giovanni Vorraro, James W.G. Turner (King Abdullah University of Science and Technology)	Saudi Arabia
30-Aug	xEV2-1:MBD Part 1	Room G	20239090	2023320069	Analysis of Standby Power in an Enclosed High-Speed Flywheel Energy Storage System Using the CFD-ANOVA Approach	Mahmoud Eltaweel, Mohammad Reza Herfatmanesh (University of Hertfordshire)	United Kingdom
30-Aug	xEV2-1:MBD Part 1	Room G	20239230	2023320070	Influence of Droplets Arrangement on an Optically Characterized GDL and Correlation to Water Management in PEM FCs	C. Antetomaso, S. S. Merola, A. Irimescu, B. M. Vaglieco (CNR-STEMS, Naples), S. Di Micco, E. Jannelli (University of Naples "Parthenope")	Italy
30-Aug	xEV2-2:MBD Part 2	Room G	20239032	2023320071	Vehicle Simulations Development to Predict Electric Field Level Distribution Based on GB/T18387 Measurement Method	Keishi Miwa, Toshio Watari, Hiroyuki Nishimura, Hiroki Ogawa (TOYOTA MOTOR CORPORATION)	Japan
30-Aug	xEV2-2:MBD Part 2	Room G	20239091	2023320072	Development of 1D Vehicle Energy Flow Model to Select Suitable Thermal System Configuration and Components	Hayato Yamashita, Takayoshi Kojima, Takeshi Ueki (SOKEN, INC.), Daisuke Hiai (DENSO CORPORATION), Nobuyuki Sakushima (Siemens K.K. Digital Industries Software)	Japan
30-Aug	IC1-4:SI High Efficiency Engine Concept	Room B	20239078	2023320073	Development of New 3.5 L V6 Gasoline Direct Injection Engine	Satoshi Kawawa, Yuki Tomitani, Hiroaki Nakashima, Akio Imakita, Shotaro Taki (Honda Motor Co., Ltd.)	Japan
30-Aug	IC1-4:SI High Efficiency Engine Concept	Room B	20239127	2023320074	Development of New 2.0L Inline 4-Cylinder NA Engine for e:HEV	Yuya Kasajima, Takeshi Egawa, Nobuhiro Ushio, Toshifumi Kondo, Ryo Yamaguchi (Honda Motor Co., Ltd.)	Japan
30-Aug	IC1-4:SI High Efficiency Engine Concept	Room B	20239172	2023320075	Influence of Combustion Mode on Heat Loss Distribution in Gasoline Engines	Hirotsugu Matsuda, Kenji Uchida, Yuji Harada, Hiroyuki Yamashita (Mazda Motor Corporation)	Japan
30-Aug	IC2-4:CI High Efficiency Engine Concepts	Room B	20239183	2023320076	In-Cylinder Air Injection for Diesel Combustion Improvement	Kazuya Miyashita, Shinya Furukawa, Munemasa Hashimoto, Yoshinori Ishii, Kenichi Yamashita (Isuzu Advanced Engineering Center, Ltd.)	Japan

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30-Aug	IC2-4:CI High Efficiency Engine Concepts	Room B	20239259	2023320077	Study on Novel Combustion Technologies to Achieve "High-Heels" Heat Release Rate Profile in a Higher-Compression-Ratio Diesel Engine	Noboru Uchida (New ACE Institute Co., Ltd.), Kazumasa Watanabe (DENSO CORPORATION)	Japan
30-Aug	IC2-4:CI High Efficiency Engine Concepts	Room B	20239031	2023320078	Closed Cycle Measures for Thermal Efficiency Improvement of a Heavy-Duty Ultra-High Compression Ratio Combustion Engine: A Numerical and Experimental Analysis	Vikram Betgeri, Stefan Pischinger (Mobile Energy Conversion Systems, RWTH Aachen University), Avnish Dhongde, Sascha Schoenfeld (FEV Europe GmbH)	Germany
30-Aug	IC1-5:SI Knock & IC4-2_MBD SI Combustion	Room C	20239148	2023320079	Numerical Investigation of Knocking in a Small Two-Stroke Engine with a High Compression Ratio to Improve Thermal Efficiency	Kuniyoshi Eto, Tatsuya Kuboyama, Yasuo Moriyoshi (Chiba University), Toshio Yamada (Sustainable Engine Research Center Co., Ltd.), Takahiro Yamazaki, Shiro Yamaguchi (Yamabiko Corp.)	Japan
30-Aug	IC1-5:SI Knock & IC4-2_MBD SI Combustion	Room C	20239234	2023320080	Engine Knocking Detection by Measuring Cylinder Pressure, Combustion Flame, Vibration and Radiation Noise	Michio Murase, Taro Kasahara (ONO SOKKI Co., Ltd.), Tatsuya Kuboyama (Chiba University)	Japan
30-Aug	IC1-5:SI Knock & IC4-2_MBD SI Combustion	Room C	20239113	2023320081	End-Gas Autoignition Prediction Using Reverse Livengood-Wu Integral with Ignition Delay Time Equations for Gasoline Surrogate Fuel	Kazunari Kuwahara (Osaka Institute of Technology)	Japan
30-Aug	IC1-5:SI Knock & IC4-2_MBD SI Combustion	Room C	20239261	2023320082	Developing a Numerical Method for Simulating Physical and Chemical Processes That Lead to LSPI	Adnan Mahmood (BP International), Paul Hellier (University College London)	United Kingdom
30-Aug	IC1-6:SI Fuel and Additives	Room C	20239110	2023320083	Effect of Olefin Content in Gasoline on Knock Characteristics and HCHO Emission in Lean Burn Spark Ignition Engine	Dittapoom Shinabuth, Yuya Ohmori, Katsuki Kitajima, Tomoya Ono, Satoshi Sakaide, Yasuyuki Sakai, Mitsuru Konno, Kotaro Tanaka (Ibaraki University)	Japan
30-Aug	IC1-6:SI Fuel and Additives	Room C	20239209	2023320084	Effect of Olefin Component Mixed to Gasoline on Thermal Efficiency in EGR Diluted Conditions Using Single-Cylinder Engine	Zhiyuan Wang, Yasuo Moriyoshi, Tatsuya Kuboyama (Chiba University)	Japan
30-Aug	IC1-6:SI Fuel and Additives	Room C	20239111	2023320085	Improvement in Oxy-Fuel Combustion of SI Engine Fueled by Natural Gas	Kiyoshi Kawasaki, Junya Suetomi, Syunsuke Yokoe, Koji Yamane, Kazuhito Dejima (The University of Shiga Prefecture)	Japan
30-Aug	IC1-6:SI Fuel and Additives	Room C	20239006	2023320086	Aftermarket Fuel Additives and Their Effects on GDI Injector Performance and Particulate Emissions	Chung-Hao Kuo (Chevron Oronite Co. LLC), Ruth Smocha, Paul Loeper, Nicholas Mukkada, Felicia Simpson Green (Chevron Downstream Technology & Services)	United States
30-Aug	IC2-5:CI Diesel Spray and Flame	Room D	20239043	2023320087	Infrared High-Speed Thermography of Combustion Chamber Wall Impinged by Diesel Spray Flame - Imaging Velocimetry of the Radially Striped Infrared Radiation Pattern	Rizal Mahmud, Tatsuki Takahashi, Hiroyuki Kinoshita, Fumika Shimizu, Areno Naganawa, Masato Morooka, Tetsuya Aizawa (Meiji University)	Japan
30-Aug	IC2-5:CI Diesel Spray and Flame	Room D	20239145	2023320088	A Study of Soot Formation Process in a Jet-Jet Interaction Region of Diesel Spray Flames with LII/LS Measurement	Naoto Horibe, Daichi Inoue, Shinnosuke Aoyagi, Jun Hayashi, Hiroshi Kawanabe (Kyoto University)	Japan
30-Aug	IC2-5:CI Diesel Spray and Flame	Room D	20239112	2023320089	Theoretical Calculation of Spray Deflection Angle of Direct-Injected Sprays from a Multiple-Orifice Nozzle	Takayuki Fuyuto (Toyota Central R&D Labs. Inc.)	Japan
30-Aug	IC1-7:SI Fuel Injection and Sprays	Room D	20239122	2023320090	Calculation of Spray Collapse in Multiple-Hole Gasoline Direct Injectors Based on the Spray Momentum Theory	Hajime Kataoka, Takayoshi Kojima, Hayato Yamashita (SOKEN, INC.), Masahiro Okuma (DENSO CORPORATION.), Takayuki Fuyuto (Toyota Central R&D Labs. Inc.)	Japan
30-Aug	IC1-7:SI Fuel Injection and Sprays	Room D	20239015	2023320091	Atomization Model in Port Fuel Injection Spray for Numerical Simulation	Kanako Nishimura, Dai Matsuda, Eriko Matsumura, Jiro Senda (Doshisha University)	Japan
30-Aug	IC1-7:SI Fuel Injection and Sprays	Room D	20239157	2023320092	Transient Flow Field Behavior after End of Spray Injection Under Different Injection and Flash Boiling Conditions	Ziming Zhou, Fengnian Zhao, David L.S. Hung (University of Michigan-SJTU Joint Institute, Shanghai Jiao Tong University), Xuesong Li, Min Xu (Shanghai Jiao Tong University)	China
30-Aug	IC1-7:SI Fuel Injection and Sprays	Room D	20239233	2023320093	Effects of Fuel Properties on Under-Expansion Behaviors of Flash-Boiling Jets	Lubing Xu, Yanfei Li, Zemin Eitan Liu, Guikun Tan, Shijin Shuai (Tsinghua University), Haifeng Xu (Yantai University)	China
30-Aug	EC1-2:SI Emissions	Room E	20239176	2023320094	Improvement of Post-Oxidation Phenomena with Lambda-Split, Post-Injection and Mixing Improvement of Exhaust Gas in Turbocharged GDI Engine	Teruaki Ishikawa, Madan Kumar (Current Affiliation: Guangdong Technion-Israel Institute of Technology (GTIIT)), Yasuo Moriyoshi, Tatsuya Kuboyama (Chiba University)	Japan
30-Aug	EC1-2:SI Emissions	Room E	20239199	2023320095	Effects of Different Driving Behavior during Actual Road Driving on Ammonia Emissions from Gasoline Vehicles	Susumu Sato, Jiabin Chen, Chanpaya Eang (Tokyo Institute of Technology), Kotaro Tanaka (Ibaraki University), Takeshi Tange (Nitterra Co., Ltd.)	Japan

Date	Sessin Name	Room	JSAE PaperNo	SAE PaperNo	Paper Title	Authors	Country
30-Aug	EC1-2:SI Emissions	Room E	20239236	2023320096	Pollutant Emissions of a Blended Plug-In Hybrid Electric Vehicle During High-Power Cold Starts	Guikun Tan, Boyuan Wang, Zemin Eitan Liu, Yanfei Li, Hongming Xu, Shijin Shuai (Tsinghua University)	China
30-Aug	EC1-2:SI Emissions	Room E	20239238	2023320097	Particulate Emission Characteristics and GPF Performance of WLTC Cycle Based on Exhaust Gas Simulator	Xiao Hu, Quanbo Shang, Kai Wang, Liguang Li, Zhijun Wu, Jun Deng (Tongji University)	China
30-Aug	EC1-3:CI Emissions	Room E	20239189	2023320098	Visualization of Physical/Thermal Evaporation Phenomena with Experimental and PIV-DDM Analysis in Urea-SCR Dosing System of Multi-Phase Flow	Tetsuo Nohara, Naoki Sugiyama, Shotaro Nara, Jyo Ono, Hiroki Onoue, Rina Osada, Yuki Kawamoto, Masayuki Ochiai (Tokai University), Shun Takahashi (Japan Aerospace Exploration Agency), Kazuo Oosumi, Naoya Ishikawa (Isuzu Advanced Engineering Center, Ltd.)	Japan
30-Aug	EC1-3:CI Emissions	Room E			Withdrawn Air Pollutant Measurement and Comparison with Emission Coefficients for Vessel's Diesel Engines		
30-Aug	EC1-3:CI Emissions	Room E	20239243	2023320100	Comparison on Combustion and Emissions Performance of Biodiesel and Diesel in a Heavy-Duty Diesel Engine: NOX, Particulate Matter, and Particle Size Distribution	Khanh Cung, Gina Buffaloe, Alex Michlberger, Thomas Briggs, Chris Bitsis, Edward Smith, Imad Khalek (Southwest Research Institute)	United States
30-Aug	HY5-6:Ammonia Combustion Part 2	Room F	20239124	2023320101	An Optimized, Data-Driven Reaction Mechanism for Dual-Fuel Combustion of Ammonia and Diesel Primary Reference Fuels	Federico Perini, Rolf D. Reitz (Wisconsin Engine Research Consultants), Niccolò Fiorini, Alessandro Innocenti, Matteo Latinov, Giovanni Vichi (Yanmar R&D Europe)	Italy
30-Aug	HY5-6:Ammonia Combustion Part 2	Room F	20239048	2023320102	Experimental and Numerical Analysis on Combustion Characteristics of Ammonia and Diesel Dual Fuel Engine	Kenji Hiraoka, Daichi Matsunaga, Takafumi Kamino, Yusuke Honda, Kazuteru Toshinaga (Yanmar Holdings Co., Ltd.), Yuki Murakami, Hisashi Nakamura (Tohoku University)	Japan
30-Aug	HY5-6:Ammonia Combustion Part 2	Room F	20239094	2023320103	A Study on Combustion and Emission Characteristics of Ammonia, Hydrogen, and Diesel Tri-Fuel Engines	Daichi Matsunaga, Takafumi Tentora, Kenji Hiraoka, Kazuteru Toshinaga (Yanmar Holdings Co., Ltd.)	Japan
30-Aug	HY5-6:Ammonia Combustion Part 2	Room F	20239165	2023320104	Lubricant Performance and Reliability of Ammonia Fueled Internal Combustion Engines	Nicolas Obrecht, Bruno Griffaton, Maria Rappo (TotalEnergies Onetech)	France
30-Aug	HY5-7:Ammonia Combustion Part 3	Room F	20239192	2023320105	Operating Characteristics of a Spark-Ignition Engine Using Hydrogen and Ammonia	Aya Ichikawa, Masamichi Sekine, Takumi Hara, Juan C. González Palencia, Mikiya Araki (Division of Mechanical Science and Technology, Gunma University), Seiichi Shiga (Ota Technical College), Shinji Kambara (Department of Chemistry and Biomolecular Science, Gifu University)	Japan
30-Aug	HY5-7:Ammonia Combustion Part 3	Room F	20239046	2023320106	Experimental Study of Fuel Mixture Limitations of Ammonia and Gasoline in a Passive Pre-Chamber Engine	Fahad Almatrafi, Kalim Uddeen, Kesty Kenkoh, Hammam Aljabri (King Fahad Abdullah University of Science and Technology), Jamie Parnell, Mark Peckham (Cambustion, Ltd), James W.G. Turner (King Abdullah University of Science and Technology)	Saudi Arabia
30-Aug	HY5-7:Ammonia Combustion Part 3	Room F	20239153	2023320107	Application of Argon Circulation to Investigate Fuel Nitrogen Oxides Emission Characteristics of Ammonia Spark Ignition Engines	Ruomiao Yang, Yuchao Yan, Juan Ou, Zhentao Liu, Jinlong Liu (Zhejiang University)	China
30-Aug	xEV1-1:System & Control Part 1	Room G	20239029	2023320108	Analysis of Overcharge Tolerance of Aged LMO Cells with Examples	Bapiraju Surampudi (Southwest Research Institute), Yanyu Wang, Dustin Kramer, Ian Smith (Southwest Research Institute)	United States
30-Aug	xEV1-1:System & Control Part 1	Room G	20239055	2023320109	New Electric Drive System for Loss Reduction by Changing Motor Winding Connection	Ryoya Hashizume, Hirofumi Kinjo, Ryotaro Okamoto, Yuji Hayashi (SOKEN, INC.), Sadahiro Akama (DENSO CORPORATION)	Japan
30-Aug	xEV1-1:System & Control Part 1	Room G	20239255	2023320110	Improvement of Efficiency and Quietness with Externally Excited Synchronous Motor	Xu Fan, Hiroki Wada (NISSAN MOTOR CO., LTD.)	Japan
30-Aug	xEV1-1:System & Control Part 1	Room G	20239256	2023320111	Development of Flexible System for Demand and Supply Imbalance Considering Battery Life	Daiki Komatsu, Kazuya Syojiki, Hiroshi Mine, Ko Takahashi, Masahiro Aoki, Shin Yamauchi (Hitachi, Ltd.)	Japan
31-Aug	TL3-2:Additives and its Effects on Engine Systems Part 2	Room B	20239169	2023320112	The Fuel Economy Improvement Effect of MoDTC with Low Viscosity Engine Oil under Hybrid Electric Vehicle	Koichi Takano, Shinji Iino, Kenji Yamamoto, Yukiya Moriizumi (Adeka Corporation)	Japan
31-Aug	TL3-2:Additives and its Effects on Engine Systems Part 2	Room B	20239150	2023320113	Influence of EP-Additives on the Efficiency and Ecological Aspects of Metalworking Fluids	Wilhelm Rehbein (Lanxess Deutschland GmbH)	Germany
31-Aug	TL3-2:Additives and its Effects on Engine Systems Part 2	Room B	20239050	2023320114	Improving Fuel Economy without Compromising Wear and Oxidative Viscosity Control in Ultra-Low Viscosity Engine Oils	Ken Garelick, Sam Field, William B. Anderson, Kristi Engelman, Hidetaka Hoshino (Afton Chemical Corporation)	United States

Date	Sessin Name	Room	JSAE PaperNo	SAE PaperNo	Paper Title	Authors	Country
31-Aug	TL4-1:Friction, Wear and NV Part 1	Room B	20239025	2023320115	Analytical Study on Involvement of Temperature in Friction and Scuffing for Engine Tribo-Components	Mitsuhiro Soejima (Kyushu Sangyo University), Toshiro Hamatake (Oita University), Tatsumi Kitahara (Kyushu University), Edward H. Smith, Ian Sherrington (University of Central Lancashire)	Japan
31-Aug	TL4-1:Friction, Wear and NV Part 1	Room B	20239139	2023320116	Investigating the Morphology and Nanostructure of Carbon Black Dispersed in Lubricant Oils and Their Impact on Chain Wear as a Proxy of Marginally Lubricated Components	A. Pacino, A. La Rocca, A. Cairns (The University of Nottingham), T. Kirkby, T. Reddyhoff (Imperial College, London), J. Smith, J. Berryman (Infineum UK Ltd), M. Fowell (Volvo Group Trucks Technology)	United Kingdom
31-Aug	IC3-1:Ignition Part 1	Room C	20239059	2023320117	Transcritical Mixing of Fuels at Reactive Conditions	Cyril Crua (University of Brighton), Julien Manin, Scott Skeen, Lyle M Pickett (Sandia National Laboratories)	United Kingdom
31-Aug	IC3-1:Ignition Part 1	Room C	20239138	2023320118	Investigating Molecular Decomposition via High-Speed Laser-Induced Rayleigh Scattering	Julien Manin, Kevin Wan (Sandia National Laboratories)	United States
31-Aug	IC3-2:Ignition Part 2	Room C	20239079	2023320119	Advanced Rapid Combustion Concept Using Autoignition Assisted Flame for High Compression Ratio SI Engines	Yuta Sasaki (Mazda Motor Corporation, Tohoku University), Junki Hori, Masatoshi Seto, Tatsuya Fujikawa (Mazda Motor Corporation), Youhi Morii, Hisashi Nakamura, Kaoru Maruta (Tohoku University)	Japan
31-Aug	IC3-2:Ignition Part 2	Room C	20239225	2023320120	Pre-Ignition Behavior of Gasoline Blends in a Single-Cylinder Engine with Varying Boost Pressure and Compression Ratio	Kristian Rönn, Martti Larmi (Aalto University), Benjamin Pehlivanlar, Christoph Göbel, Stefan Pischinger (RWTH Aachen University), Anna Karvo, Kalle Lehto (NESTE Corporation.), Johannes Fryjan (FEV Europe GmbH)	Finland
31-Aug	IC3-2:Ignition Part 2	Room C	20239244	2023320121	Numerical Study of Dual Fuel Methanol/Diesel Combustion Under Engine-Like Condition	Khanh Cung, Prabhat Jha, Thomas Briggs, Chris Bitsis, Edward Smith, Zainal Abidin (Southwest Research Institute)	United States
31-Aug	OS3:Advanced Aftertreatment Systems toward Zero-impact Emission	Room D	20239135	2023320122	Development of Detailed Surface Reaction Mechanism of CO/NO/O2 System for Three-Way Catalyst Based on Gaseous and Surface Species Analyses	Yuhei Matsumoto, Daisuke Shimokuri, Akira Miyoshi (Hiroshima University), Satoshi Hinokuma (National Institute of Advanced Industrial Science and Technology), Hiroshi Murakami, Michiharu Kawano (Mazda Motor Corporation)	Japan
31-Aug	OS3:Advanced Aftertreatment Systems toward Zero-impact Emission	Room D	20239219	2023320123	Investigation of Exhaust Particles on Different TEM Grids: A Comparison between Graphene Oxide and Silicon Nitride Grids	Salvatore Lagana, Romans Akifjevs, Antonino La Rocca, Alasdair Cairns, Michael W. Fay, Kevin F. Webb (University of Nottingham)	United Kingdom
31-Aug	OS3:Advanced Aftertreatment Systems toward Zero-impact Emission	Room D	20239132	2023320124	Improvement of PN Filtration Efficiency of Coated GPF – Study of Improvement of PN Filtration Efficiency and Reduction of Pressure Drop	Hiromasa Nishioka, Hiroshi Kobayashi, Takahiko Fujiwara, Koji Sugiura, Yasuyuki Irisawa (TOYOTA MOTOR CORPORATION)	Japan
31-Aug	OS3:Advanced Aftertreatment Systems toward Zero-impact Emission	Room D	20239149	2023320125	A Study of Multi-Functional Membrane Filters Made of Fine Catalyst Particles	Katsunori Hanamura, Shinpei Fujii, Suteerapongpun Teerapat (Tokyo Institute of Technology)	Japan
31-Aug	CN:Recycle/Reuse of CO2 and Analysis	Room E	20239039	2023320126	New Challenges towards Electrification Sustainability: Environmental Impact Assessment Comparison between ICE and Hybrid-Electric Orchard Tractor	Salvatore Martelli, Francesco Mocera, Aurelio Somà (Politecnico di Torino)	Italy
31-Aug	CN Recycle/Reuse of CO2 and Analysis	Room E	20239114	2023320127	Required Conditions for Regeneration of a CO2 Separation and Capture System Using an Adsorption Method with Zeolite for Internal Combustion Engines	Tadanori Yanai, Satoshi Yamazaki (Shizuoka Institute of Science and Technology)	Japan
31-Aug	CN:Recycle/Reuse of CO2 and Analysis	Room E	20239170	2023320128	Denso's Initiatives of CO2 Capture and Utilization Technology toward Carbon Neutrality	Masayuki Suzuki, Koji Ishizuka, Kazuya Komagata (DENSO CORPORATION)	Japan
31-Aug	RF1-1:Bio fuels, HVO Part 1	Room F	20239105	2023320129	Characterization of the Biogas Produced from the Anaerobic Fermentation of Sargassum for Energy Applications and Simulation with the Specialized Software SimuCF for Its Large-Scale Application, Case Study in the Dominican Republic.	Junior Alexis-Villanueva Rosario, Ruben Dario-Ramos Ciprian, Dario Alexander-Ramos Ciprian, Milka Terrero-Ventura (Universidad Central del Este (UCE)), Ina-Körner, Anna-Deipser, Luis Marcel-Vargas Luft (Hamburg University of Technology (TUHH)), Jose Miquel-Salavert	Spain
31-Aug	RF1-1:Bio fuels, HVO Part 1	Room F	20239262	2023320130	Routes to Market for Hydrogenated Vegetable Oils	Dhanesh Goberdhan (Infineum UK)	United Kingdom
31-Aug	RF1-1:Bio fuels, HVO Part 1	Room F	20239017	2023320131	A Study of Biodiesel and Biodiesel Petroleum Diesel Blends to Mitigate Filter Blocking	James Barker, Jaqueline Reid, Edward Wilmot (Innospec), Anastarsia Carter, John Langley, Julie Herniman (University of Southampton)	United Kingdom
31-Aug	RF1-2:Bio fuels, HVO Part 2	Room F	20239037	2023320132	Charge Dilution Strategy to Extend the Stable Combustion Regime of a Homogenous Charge Compression Ignited Engine Operated with Biodiesel	Kiran Raj Bukkarapu, Anand Krishnasamy (Indian Institute of Technology Madras)	India
31-Aug	RF1-2:Bio fuels, HVO Part 2	Room F	20239250	2023320133	Waste Plastic Pyrolytic Oil Blends as Valuable Fuels for Modern Compression Ignition Engines	Jacek Hunicz, Arkadiusz Rybak (Lublin University of Technology), Kamil Duda (University of Warmia and Mazury), Murugan Sivalingam (National Institute of Technology, Rourkela), Maciej Mikulski (University of Vaasa)	Poland

Date	Sessin Name	Room	JSAE PaperNo	SAE PaperNo	Paper Title	Authors	Country
31-Aug	xEV3:Thermal Management	Room G	20239178	2023320134	Low Friction and On-Demand Thermal Management for a High-Efficiency Internal Combustion Engine in a Net Zero CO2 Hybrid Powertrain	Thomas Arnold, Jan Böhme, Matthias Krause, Mirko Leesch (IAV GmbH), Masataka Aoki (IAV Co., Ltd)	Germany
31-Aug	xEV3:Thermal Management	Room G	20239265	2023320135	Detailed Thermal Characterization on a 48V Lithium-Ion Battery Pack During Charge-Discharge Cycles	Antonio Paolo Carlucci, Hossein Darvish, Domenico Laforgia (University of Salento)	Italy
31-Aug	xEV1-2:System & Control Part 2	Room G	20239158	2023320136	Evaluation and Analysis of Hydrogen Embrittlement Characteristics of Various Steel Materials	Ryoji Suzuki, Yuri Matsume, Noriaki Katori (Hino Motors, Ltd.)	Japan
31-Aug	xEV1-2:System & Control Part 2	Room G	20239220	2023320137	Demonstration Test of Automotive Photovoltaic System for an Electric Vehicle	Yosuke Tomita, Tsutomu Tanimoto, Masanori Saito, Yoshiyuki Nagai, Takumi Arai (Nissan Motor Co., Ltd.), Kimihiro Nishijima (Sojo University)	Japan
31-Aug	xEV1-2:System & Control Part 2	Room G	20239081	2023320138	Structure and Properties of a Nano-Carbon Composite Surface Coating for Roll-to-Roll Manufacturing of Titanium Fuel Cell Bipolar Plates	Takenori Yamasaki, Kotaro Ikeda (TOYOTA MOTOR CORPORATION), Toshiki Sato (Kobe Steel, Ltd.)	Japan
31-Aug	TL4-2:Friction, Wear and NV Part 2	Room B	20239167	2023320139	Mechanism of Thicker Oil Film Formation Caused by Micro-Dimples Elucidated by Direct Observation with Laser-Induced Fluorescence	Masanori Sakai, Tomoko Hirayama, Naoki Yamashita, Naoya Hatano, Kazuya Tatsumi (Kyoto University), Hideyuki Fujita, Naoyoshi Kuragaki (Yamaha Motor Co., Ltd.)	Japan
31-Aug	TL4-2:Friction, Wear and NV Part 2	Room B	20239130	2023320140	Effect of Wet Liner Vibration on Ring-Liner Interaction in Heavy-Duty Engines	Casey S. Bradt, Yuesen Wang, Tian Tian (Massachusetts Institute of Technology), Hengchao Cao, Guixiang Zhu (Weichai Power Co., Ltd.)	United States
31-Aug	TL4-2:Friction, Wear and NV Part 2	Room B	20239076	2023320141	Numerical Study of the Effect of the Damping Ratio of the Internal Transmission System on the Combustion-Induced Vibration of a Diesel Engine	Shun Nakagawa (Yamaguchi University), Hitoshi Oguchi (Japan Coast Guard Academy), Masato Mikami (Yamaguchi University)	Japan
31-Aug	TL5:Powertrain /EV Lubricants	Room B	20239118	2023320142	Characterization of E-Fluids from Laboratory Analysis to Test Bench and Test Stands	Jan Gurski, Rico Pelz, Dirk Schäfer, Rouven Kirchhoff, Dr. Gunther Müller (Automobil-Prüftechnik Landau GmbH)	Germany
31-Aug	TL5:Powertrain /EV Lubricants	Room B	20239202	2023320143	Drivetrain Lubricants with Efficiency-Boosting Properties for Electric Vehicles	Noriyuki Matsui, Shingo Matsuki, Mari Iino, Junnosuke Akiguchi, Kimikazu Itou, Tomohito Saitou (Eneos Corporation)	Japan
31-Aug	TL5:Powertrain /EV Lubricants	Room B	20239016	2023320144	Effect of Viscosity Characteristics of Lubricants for Electric Vehicles on Thermal Conductivity and Gear Protection	Kazushige Matsubara, Hiroyuki Tatsumi, Yasuhito Nakahara, Daisuke Takekawa, Keiichi Narita (Lubricants Research Laboratory, Idemitsu Kosan Co., Ltd.)	Japan
31-Aug	TL5:Powertrain /EV Lubricants	Room B	20239054	2023320145	Magnet Wire Compatibility Test for Electric Drivetrain Fluid Development	Yungwan Kwak, Piotr Grzyska, Christopher Cleveland (Afton Chemical Corporation), Adachi Tsuneo (Afton Chemical Japan Corporation)	United States
31-Aug	TL5:Powertrain /EV Lubricants	Room B	20239109	2023320146	Greases for Powertrains: Thickener Effect, Electric Conductivity, and Life Cycle Assessment	Sergei Glavatskih (KTH Royal Institute of Technology, University of New South Wales, Ghent University), Johan Leckner (KTH Royal Institute of Technology)	Sweden
31-Aug	IC3-3:Reaction Kinetics Part1	Room C	20239151	2023320147	Study on Influences of Hydrogen Addition and Turbulence on Ignition Characteristics of Hydrocarbon Mixtures	Masaya Nakahara, Yuki Matsushita, Kensuke Kishiura, Fumiaki Abe, Kenichi Tokunaga (Ehime University)	Japan
31-Aug	IC3-3:Reaction Kinetics Part1	Room C	20239217	2023320148	Influence of Reforming by Non-Equilibrium Plasma on Spontaneous Ignition of n-Heptane/Ethanol/N2/O2 Mixture	Masaki Otani, Keigo Takagi, Koichi Gomi, Eita Sakurai, Yusuke Sasaki, Masanori Saito, Mitsuaki Tanabe (Nihon University)	Japan
31-Aug	IC3-3:Reaction Kinetics Part1	Room C	20239264	2023320149	An Experimental Study to Assess the Impact of Discharge Frequency of the Dielectric Barrier Discharge on Ignition Process of Premixed Mixture Under Elevated Pressure	Saurabh Agrawal, Shuya Yamamoto, Naoto Horibe, Jun Hayashi, Hiroshi Kawanabe (Kyoto University)	Japan
31-Aug	IC3-4:Reaction Kinetics Part2	Room C	20239159	2023320150	The Effect of Methane Addition on the Low-Temperature Oxidation Preparation and the Thermal Ignition Preparation of Dimethyl Ether Under Representative Engine In-Cylinder Thermal Conditions	Juan Ou, Ruomiao Yang, Yuchao Yan, Zhentao Liu, Jinlong Liu (Zhejiang University)	China
31-Aug	IC3-4:Reaction Kinetics Part2	Room C	20239232	2023320151	Withdrawn A Skeletal Methanol/NOX Kinetic Mechanism for Full-Cycle Simulations of Spark-Ignition Engine Combustion with Exhaust Gas Recirculation	Wenxian Tang, Mickael Silva, Khaiyom Hakimov, Xiaoyuan Zhang, Ponnya Hlaing, James W.G. Turner, Aamir Farooq, Hong G. Im, S. Mani Sarathy (King Abdullah University of Science and Technology), Emre Cenker, Abdullah S AlRamadan (Saudi Aramco Research and	Saudi Arabia
31-Aug	IC4-3:MBD Engine System and Control Part 2	Room D	20239222	2023320152	A Study on the Control of Cycle-to-Cycle Combustion Variations in a Gasoline Engine Using Machine Learning	Koyo Horie, Yudai Yamasaki, Kazuki Harada (The University of Tokyo)	Japan

Date	Sessin Name	Room	JSAE PaperNo	SAE PaperNo	Paper Title	Authors	Country
31-Aug	IC4-3:MBD Engine Systme and Control Part 2	Room D	20239253	2023320153	Development of Model-Based Control System for a Low Pressure Loop EGR with a Negative Pressure Control Valve	Taichi Ando, Yukiyo Yamada, Kenji Suzuki, Tomohiro Yanaka (Nissan Motor Co., Ltd.)	Japan
31-Aug	IC4-3:MBD Engine Systme and Control Part 2	Room D	20239001	2023320154	Highly Efficient Development of Powertrain Systems Using 1D Real-Time Engine Model	Kenichiro Ogata, Hiromitsu Matsuda, Haruna Kawai, Keiji Shiota (Honda Motor Co., Ltd.)	Japan
31-Aug	IC4-3:MBD Engine Systme and Control Part 2	Room D	20239047	2023320155	Air-Path System Transient Control of Dual-Combustion-Mode Diesel Engine Based on Universal Sliding Mode Method	Ling Leng, Tianyu Chen, Lei Shi, Kangyao Deng (Shanghai Jiao Tong University), Shuan Qu (China North Engine Research Institute)	China
31-Aug	IC4-4:MBD CI Combustion	Room D	20239085	2023320156	Research on the Real-Time PM Emission Prediction Method for the Transient Process of Diesel Engine Based on Transformer Model	Ziqiang Chen, Kangbo Lu, Zhe Wang, Lei Shi, Kangyao Deng (Shanghai Jiao Tong University), Xiaochun Luo (Shanghai Marine Equipment Research Institute)	China
31-Aug	IC4-4:MBD CI Combustion	Room D	20239086	2023320157	A Machine Learning Approach for Engine Model-Based Control on NOx Emissions	Matteo Latinov, Niccolò Fiorini, Giovanni Vichi, Alessandro Innocenti, Piero Danti (Yanmar R&D Europe)	Italy
31-Aug	IC4-4:MBD CI Combustion	Room D	20239128	2023320158	Prediction of Combustion Process and NOx Emission for Dual Fuel Marine Engines Using a Phenomenological Model	Qian Xiong, Dezhi Liang, Lujiang Wang, Xinru Shi, Long Liu, Xiuzhen Ma (Harbin Engineering University)	China
31-Aug	TL1-1:Engine Bearings Part 1	Room E	20239254	2023320159	Local Pressure Leveling Design Method for Multi-Link Mechanism for Variable Compression Ratio Engine	Takayoshi Furukawa, Hiroki Asajima, Takashi Tanabe, Satoru Ookuma, Kentaro Kawahara (NISSAN MOTOR CO., LTD.)	Japan
31-Aug	TL1-1: Engine Bearings Part 1	Room E	20239004	2023320160	Evaluation of Distinctive Oil Bores in Engine Crankshaft for Friction Reduction Purpose	Hiroshi Yajima (Toyota Gazoo Racing Europe GmbH), Shunichi Mayumi, Motoichi Murakami (TOYOTA MOTOR CORPORATION)	Germany
31-Aug	TL1-1:Engine Bearings Part 1	Room E	20239042	2023320161	Modeling of Piston Pin Rotation in a Large Bore Gas Engine	Zhiyuan Shu, Tian Tian, Zhen Meng (Massachusetts Institute of Technology), Rolf-Gerhard Fiedler (MAHLE International GmbH), Frank Berbig (Rolls-Royce Solutions GmbH)	United States
31-Aug	TL1-2:Engine Bearings Part 2	Room E	20239206	2023320162	Friction Prediction Method for Engine Bearings Using EHD Analysis Considering Modified Friction Coefficient and Running-In Depending on Lubrication Conditions	Yohei Kurabe, Yuna Suzuki, Yuichiro Kajiki (Taiho Kogyo Co.,Ltd)	Japan
31-Aug	TL1-2:Engine Bearings Part 2	Room E	20239005	2023320163	Digital High-Speed Photography of Cavitation in Journal Bearings	Peter Reinke, Marcus Schmidt, Tom Beckmann (University of Applied Sciences and Arts Hildesheim/Holzminden/Göttingen), Adrian Rienaecker (University of Kassel)	Germany
31-Aug	RF2:e-fuels	Room F	20239022	2023320164	Explicit Equations for Designing Surrogate Gasoline Formulations Containing Ethanol, Isopentane, n-Heptane, Isooctane and Toluene	Filimonas Kaliafietis (University of Bath, Shell Global Solutions), Dr. Roger F. Cracknell (Shell Global Solutions)	United Kingdom
31-Aug	RF2:e-fuels	Room F	20239175	2023320165	Evaluation of Fully Sustainable Low Carbon Gasoline Fuels Meeting Japanese E10 Regular and Premium Octane Specifications	Timothy Yates, Rana Ali (BP International Ltd.), Mayu Suzuki, Naoyoshi Matsubara, Nozomi Yokoo (TOYOTA MOTOR CORPORATION), Takuya Morii, Shota Akiyama (Suzuki Motor Corporation), Keita Ishizaki (BP Japan K.K.)	Japan
31-Aug	RF2:e-fuels	Room F	20239089	2023320166	Cold Start Performance of Sustainable Oxygenated Spark Ignition Fuels	Christoph Kraus, Felix Fellner, Martin Härtl, Malte Jaensch (Technical University of Munich), Akiyasu Miyamoto, Henning Sauerland (Hitachi Europe GmbH)	Germany
31-Aug	RF2:e-fuels	Room F	20239057	2023320167	Study on Combustion and Exhaust Emissions Characteristics of Oxymethylene Dimethyl Ether Blends with Fischer-Tropsch Fuels in Diesel Engines	Haoyu Yuan, Takuma Tsukuda, Jumpei Nishino, Gen Shibata, Hideyuki Ogawa (Hokkaido University)	Japan
31-Aug	HY5-8:Hydrogen Abnormal Combustion	Room F	20239014	2023320168	Formation Mechanisms and Characterization of Abnormal Combustion Phenomena of Hydrogen Engines	Peter Grabner, Michael Schneider, Kevin Gschiel (Graz University of Technology)	Austria
31-Aug	HY5-8:Hydrogen Abnormal Combustion	Room F	20239070	2023320169	On the Phenomenology of Hot-Spot Induced Pre-Ignition in a Direct-Injection Hydrogen-Fueled, Heavy-Duty, Optical Engine	Rajavasanth Rajasegar, Ales Srna (Sandia National Laboratories), Ibrahim Barbery, Ricardo Novella (CMT – Motores Térmicos, Universitat Politècnica de València)	United States
31-Aug	HY5-8:Hydrogen Abnormal Combustion	Room F	20239235	2023320170	Effect of Working Gas Composition on Combustion and Knocking in Argon Closed-Cycle Hydrogen Engine	Zhili Chen, Yuki Tomita (Tokai University)	Japan
31-Aug	HY5-8:Hydrogen Abnormal Combustion	Room F	20239246	2023320171	Comprehensive Quasi-Dimensional Model to Predict Combustion Process, Knock Likelihood and Cycle-by-Cycle Variability in a Hydrogen-Fueled Internal Combustion Engine	Piano, A., Millo, F., Quattrone, G. (Politecnico di Torino, Italy), Pesce, F., Vassallo, A. (PUNCH Torino SpA, Italy)	Italy

Date	Sessin Name	Room	JSAE PaperNo	SAE PaperNo	Paper Title	Authors	Country
31-Aug	xEV1-3:System & Control Part 3	Room G	20239100	2023320172	Hybrid Operation Characteristics and Their Impact on Engine Oil Requirements	Kenneth Garelick, Huifang Shao, Hoshino Hidetaka (Afton Chemical Corporation), Yanfei Li, Shijin Shuai (Tsinghua University)	United States
31-Aug	xEV1-3:System & Control Part 3	Room G	20239185	2023320173	Development of New Plug-In Hybrid System for 2023 Model Vehicle	Shigeki Kazehare, Tetsu Miyamoto, Shinji Takuno, Yosuke Yamamoto, Ichiro Inaba, Masatoshi Saito (Honda Motor Co., Ltd.)	Japan
31-Aug	xEV1-3:System & Control Part 3	Room G	20239203	2023320174	Improvement of Quietness in the Cabin by Engine Control Based on Road Noise Estimation for New Series Hybrid System	Takanobu Sawada, Yasuhiro Yamauchi, Atsushi Teraji, Masaya Gotou, Sho Aizumi, Hisayoshi Matsuoka, Toshio Enomoto (Nissan Motor Corporation)	Japan
31-Aug	xEV1-3:System & Control Part 3	Room G	20239249	2023320175	The Role of the Heavy-Duty Diesel Engine Towards a Sustainable Mobility Future	Y. Frekers, J. Weber, A. Balaji, J. Schatorjé, D. Queck, O. Herrmann (DENSO AUTOMOTIVE Deutschland GmbH), S. Yoshida, K. Tanaka, Y. Tomida, T. Ono (DENSO CORPORATION)	Germany
31-Aug	xEV1-4:System & Control Part4	Room G	20239166	2023320176	Energy Management of Marine Hybrid Power System with Composite Energy Storage Devices for a Tugboat	Shen Wu (Shanghai Jiao Tong University, Chiba University, Japan), Tie Li, Hang-Lin Wang, Run Chen, Shuai Huang, Shi-Yan Li Shanghai Jiao Tong University)	China
31-Aug	xEV1-4:System & Control Part4	Room G	20239194	2023320177	Synthesis of Representative Driving Cycle for Heavy Duty Vehicle Based on Markov Chain and Big Data Considering Weight Variation	Zemin Eitan Liu, Yong Li, Guikun Tan, Lubing Xu, Yanfei Li, Shijin Shuai (Tsinghua University)	China
31-Aug	xEV1-4:System & Control Part4	Room G	20239252	2023320178	Study of Position Sensorless Control to Generator for 100% Electric-Drive Hybrid Vehicles	Mitsuhiro Shouji, Kenichi Mori, Kohei Kawasaki, Jun Motosugi (Nissan Motor Co., Ltd.)	Japan
31-Aug	xEV1-4:System & Control Part4	Room G	20239097	2023320179	Development of a Predictive ECMS Based on Short-Term Velocity Forecast for a Fuel-Cell Hybrid Electric Vehicle Considering Component Aging	Marco Piras, Vincenzo De Bellis, Enrica Malfi (Università di Napoli Federico II), Ricardo Novella, Marcos Lopez-Juarez (Universitat Politècnica de València)	Italy