



SAE NAPLES
An SAE International Section

ICE2017

**13th International Conference
on Engines & Vehicles**

PROGRAM

September 10 - 14, 2017 @ Capri, Napoli

Monday 11 September

9:00	Opening Ceremony Cesare Pianese SAENA President & Vittorio Rocco Istituto Motori Director Robert M. Wagner & Bianca M. Vaglieco Conference Chairs	
9:20	Death of IC Engine Again? - Doug Patton SAE International President (USA) / Chairperson: Cesare Pianese	
10:00	Carbon Neutral Fuels for efficient ICE: an alternative towards Green Mobility - Dario Sacco C.R.F. (Italy) / Chairperson: Bianca M. Vaglieco	
10:40	Coffee break	
	Room Teatro	Room Donna Lucia
	Combustion and Flow Diagnostics (ICE103) Chairpersons: Richard Stone, Ezio Mancaruso	CI & SI Engines Technology (ICE501/1) Chairpersons: Michael Bargende, Donatus Wichelhaus
11:10	In-cylinder Temperature Measurements Using Laser Induced Grating Spectroscopy and Two-Colour PLIF (2017-24-0045) Blane Scott, Christopher Willman, Ben Williams, Paul Ewart, Richard Stone , University of Oxford; David Richardson , Jaguar Land Rover Limited.	Diesel Engine Technologies Evolution for Future Challenges (2017-24-0179) Marco Tonetti, Giorgio Rustici, Massimo Buscema , Centro Ricerche Fiat S.C.p.A.; Luca Ferraris , FCA Italy S.p.A.
11:30	Soot Characterization of Diesel/Gasoline Blends Injected through a Single Injection System in CI engines (2017-24-0048) Jose V. Pastor, Jose M. Garcia-Oliver, Antonio Garcia, Mattia Pinotti , Universitat Politecnica de Valencia.	Development of an Innovative Combustion Process: Spark-Assisted Compression Ignition (2017-24-0147) Marco Chiodi, Andreas Kaechele , FKFS; Michael Bargende , FKFS/IVK, University Stuttgart; Donatus Wichelhaus, Christian Poetsch , Volkswagen Motorsport GmbH.
11:50	Experimental Investigation of an In-Cylinder Sampling Technique for the Evaluation of the Residual Gas Fraction (2017-24-0042) Ali Jannoun, Xavier Tauzia, Pascal Chesse, Alain Maiboom , Ecole Centrale De Nantes."	Resonance Charging Applied to a Turbo Charged Gasoline Engine for Transient Behavior Enhancement at Low Engine Speed (2017-24-0146) Vincent Raimbault, Jerome Migaud , MANN+HUMMEL France; David Chalet, Quentin Montaigne , Ecole Centrale de Nantes; Michael Bargende , IVK Universität Stuttgart; Emmanuel Revol , PSA Group.
12:10	Generation of Turbulence in a RCEM Towards Engine Relevant Conditions for Premixed Combustion Based on CFD and PIV Investigations (2017-24-0043) Thomas Kammermann, Jann Koch, Patrik Soltic , Empa; Konstantinos Boulouchos , ETH Zurich; Yuri M. Wright , ETH Zurich/Combust.+FlowSolut. GmbH.	Achieving the Max Potential From a Variable Compression Ratio and Early Intake Valve Closure Strategy by Combination with a Long Stroke Engine Layout (2017-24-0155) Marc Sens, Michael Guenther, Matthias Hunger, Jan Mueller, Sascha Nicklitzsch , Ulrich Walther, IAV GmbH; Steffen Zwahr , Westsaechsische Hochschule Zwickau.
12:30	Development of a Research-Oriented Cylinder Head with Modular Injector Mounting and Access for Multiple In-Cylinder Diagnostics (2017-24-0044) Jeremy Rochussen, Jeff Son, Jeff Yeo, Mahdiar Khosravi, Patrick Kirchen , University of British Columbia; Gordon McTaggart-Cowan , Westport Fuel Systems Inc.	Redesign of a Radial Turbine Variable Stator Geometry With Optimized Free Space Parameter for Improved Efficiency (2017-24-0154) Ruud Eichhorn, Michael Boot, David Smeulders, Michel Cuijpers , Eindhoven University of Technology.
12:50	AVL TABKIN™ - Maximizing the Efficiency of Detailed Chemistry Simulations (Oral Only) F. Tap, C. Meijer, D. Goryntsev, A. Starikov , AVL Dacolt BV; M. Tvrdojevic, P. Priesching , AVL List GmbH.	Technology Comparison for Spark Ignition Engines of New Generation (2017-24-0151) Matteo De Cesare, Luigi Paiano , MAGNETI MARELLI SpA - Div. Powertrain; Nicolò Cavina , University of Bologna.
13:10	Lunch break	

Monday 11 September

	<i>Room Capri</i>	<i>Room Rotonda</i>
	LTC/HCCI/PCCI/RCCI (ICE 203/1) Chairpersons: Antonio M. Garcia, Bengt Johansson	Emissions Control Modeling (ICE402) Chairpersons: Cary Henry, Livia Della Ragione
11:10	<p>Particulates Size Distribution of Reactivity Controlled Compression Ignition (RCCI) on a Medium-Duty Engine Fueled with Diesel and Gasoline at Different Engine Speeds (2017-24-0085) Jesus Benajes, Antonio Garcia, Javier Monsalve-Serrano, Vicente Boronat, Universitat Politecnica de Valencia.</p>	<p>Rig Test of Diesel Combustion Chamber with Piston Coated by Optically Simulated Semitransparent PSZ-Ceramic (2017-24-0129) Vladimir Merzlikin, Svetlana Parshina, Moscow Polytechnic University; Victoria Garnova, Andrey Bystrov, Sergey Khudyakov, Plekhanov Russian University of Economic; Alexander Makarov, Peoples' Friendship University of Russia.</p>
11:30	<p>Blending Behavior of Ethanol with PRF 84 and FACE A Gasoline in HCCI Combustion Mmode (2017-24-0082) Muhammad Umer Waqas, Nour Atef, Eshan Singh, Jean-Baptiste Masurier, Mani Sarathy, Bengt Johansson, King Abdullah Univ. of Science & Tech.</p>	<p>Improvement of the Control-Oriented Model for the Engine-Out NOx Estimation Based on In-Cylinder Pressure Measurement (2017-24-0130) Antonio Paolo Carlucci, Marco Benegiamo, Daniela Ingrosso, University of Salento; Sergio Camporeale, Politecnico di Bari.</p>
11:50	<p>A Late Injection Combustion Strategy Using a Novel Ramped Combustion System (2017-24-0090) Robert E. Morgan, Morgan Heikal, Emily Pike-Wilson, University Of Brighton.</p>	<p>Dynamic Validation of an Engine Out NOx Estimation Model Based on In-Cylinder Pressure Measurements (2017-24-0131) Sergio Mario Camporeale, Patrizia D.Ciliberti, Politecnico di Bari - DMMM; Antonio Carlucci, Daniela Ingrosso, Università Del Salento.</p>
12:10	<p>Effect of Aromatics on Combustion Stratification and Particulate Emissions from Low Octane Gasoline Fuels in PPC and HCCI Mode (2017-24-0086) Yanzhao An, S. Vedharaj, R. Vallinayagam, Alaaeldin Dawood, Jean-Baptiste MASURIER, Bengt Johansson, King Abdullah Univ of Science & Tech; Mohammad Izadi Najafabadi, Bart Somers, Technische Universiteit Eindhoven; Junseok Chang, Saudi Aramco.</p>	<p>Evaluating Performance of Uncoated GPF in Real World Driving Using Experimental Results and CFD Modelling (2017-24-0128) Lauretta Rubino, GM Europe; Jan Piotr Oles, Antonino La Rocca, University of Nottingham.</p>
12:30	<p>Compression Ignition of Light Naphtha and Its Multicomponent Surrogate under Partially Premixed Conditions (2017-24-0078) R. Vallinayagam, S. Vedharaj, Yanzhao An, Alaaeldin Dawood, Mani Sarathy, Bengt Johansson, King Abdullah Univ of Science & Tech; Mohammad Izadi Najafabadi, Bart Somers, Technische Universiteit Eindhoven; Junseok Chang, Saudi Aramco.</p>	<p>New modelling process to estimate real-world emission (Oral Only) Roberto Bruno Bossio, Ricardo.</p>
12:50	<p>Experimental investigation of in-cylinder heat transfer during PPC combustion (Oral Only) Stijn Broekaert, Thomas De Cuyper, Michel De Paepe, Sebastian Verhelst, Ghent University; Kam Chana, Univ of Oxford; Martin Tuner, Lund University.</p>	
13:10	Lunch break	

Monday 11 September

14:00	Evolution of Engine Lubricants Technologies Enabling Improved Systems' Efficiency and Extended Durability - Ewa Bardasz Technical Fellow at Lubrizol (USA) / Chairperson: Robert M. Wagner	
14:30	Coffee break	
	Room Teatro	Room Donna Lucia
	0-D and 1-D Modeling and Numerics (ICE 101/1) Chairpersons: Angelo Onorati, Federico Millo	Engine Boosting Systems (ICE504) Chairpersons: Fabio Bozza, Peter Eilts
15:10	Two-Stage Ignition Occurrence in the End Gas and Modeling Its Influence on Engine Knock (2017-24-0001) Alexander Fandakov, Michael Bargende , IVK, University of Stuttgart; Michael Grill , FKFS; Andre Casal Kulzer , Porsche AG.	Potential of Electric Energy Recuperation by Means of the Turbocharger on a Downsized Gasoline Engine (2017-24-0162) Harald Stoffels, Jens Dunstheimer, Christian Hofmann , Ford Werke GmbH.
15:30	On the Entrainment Velocity and Characteristic Length Scales Used for Quasi-Dimensional Turbulent Combustion Modeling in Spark Ignition Engines (2017-24-0002) Adrian Irimescu, Silvana Di Iorio, Simona Merola, Paolo Sementa, Bianca Maria Vaglieco , Istituto Motori CNR.	Conceptual Design of a Variable Geometry, Axial Flow Turbocharger Turbine (2017-24-0163) Apostolos Pesiridis , Brunel University London; Angelo Saccomanno, Raffaele Tuccillo , University of Naples Federico II; Alfredo Capobianco , Accenture Spa.
15:50	Assessment of the Approximation Formula for the Calculation of Methane/Air Laminar Burning Velocities Used in Engine Combustion Models (2017-24-0007) Joachim Beeckmann, Raik Hesse, Felix Bejot, Nan Xu, Heinz Pitsch , RWTH Aachen University.	Evaluation of Different Turbocharger Configurations for a Heavy-Duty Partially Premixed Combustion Engine (2017-24-0164) Erik Svensson, Lianhao Yin, Per Tunestal, Marcus Thern, Martin Tuner , Lund University.
16:10	A Methodology for Modelling the Cat-Heating Transient Phase in a Turbocharged Direct Injection Spark Ignition Engine (2017-24-0010) Federico Millo, Luciano Rolando, Alessandro Zanelli , Politecnico di Torino; Francesco Pulvirenti, Matteo Cucchi, Vincenzo Rossi , Ferrari S.p.A.	Alternative Engine Architectures (ICE505) Chairpersons: Carlo Beatrice, Greg Davis
		An Investigation Into the Porting of a Burt-McCollum Sleeve Valve and its Interaction With a Simple Variable Compression Ratio Mechanism (2017-24-0168) James W.G. Turner, James P. Lewis Monsma , University Of Bath.
16:30	Extension and Validation of a 1D Model Applied to the Analysis of a Water Injected Turbocharged Spark Ignited Engine at High Loads and over a WLTP Driving Cycle (2017-24-0014) Fabio Bozza, Vincenzo De Bellis, Luigi Teodosio , Univeristy of Naples Federico II; Pietro Giannattasio , University of Udine; Luca Marchitto , Istituto Motori CNR.	Scavenge Ports Optimization of a 2-Stroke Opposed Piston Diesel Engine (2017-24-0167) Enrico Mattarelli, Carlo Rinaldini, Tommaso Savioli, Giuseppe Cantore , Università di Modena e Reggio Emilia; Alok Warey , General Motors Global R & D; Michael Potter, Venkatesh Gopalakrishnan, Sandro Balestrino , General Motors LLC.
16:50	Numerical Study of the Potential of a Variable Compression Ratio Concept Applied to a Downsized Turbocharged VVA Spark Ignition Engine (2017-24-0015) Luigi Teodosio, Vincenzo De Bellis, Fabio Bozza, Daniela Tufano , University of Naples.	The Recuperated Split Cycle Experimental Combustion Data from a Single Cylinder Test Rig (2017-24-0169) Robert E. Morgan, Guangyu dong, Morgan Heikal, Christopher Ienartowicz , University of Brighton; Neville Jackson, Ricardo plc; Andrew Atkins , Ricardo UK Ltd.
17:10	Wall Heat Transfer in a Multi-Link Extended Expansion SI-Engine (2017-24-0016) Morris Langwiesner, Christian Krueger , Sebastian Donath, Daimler AG; Michael Bargende , University of Stuttgart.	Evaluating the Effect of Intake Manifold Size on Lag Time in Single Cylinder Turbocharged Engines (2017-24-0170) Michael R. Buchman, Amos Winter , Massachusetts Institute of Technology.
17:30	SAE-NA Naples Section meeting	
20:30	Informal dinner	

Monday 11 September

	<i>Room Capri</i>	<i>Room Rotonda</i>
	Alternative and Advanced Fuels (ICE303) Chairpersons: Paolo Carlucci, Ewa Bardasz	Particle Emissions from Combustion Sources (ICE404) Chairpersons: Imad Khalek, Silvana Di Iorio
15:10	Assessment of the Full Thermodynamic Potential of C8-Oxygenates for Clean Diesel Combustion (2017-24-0118) Marius Zubel, Benedikt Heuser , Institute for Combustion Engines; Stefan Pischinger , RWTH Aachen University.	Combustion Characteristics and Particulate Matter Number Size Study of Ethanol and Diesel Reactivity Controlled Compression Ignition Engine (2017-24-0143) Sathaporn Chuepeng , Kasetsart University; Kampanart Theinnoi , KMUTNB; Manida Tongroon , National Metal and Materials Tech Center.
15:30	Preliminary Investigation of a BioBased Low Sulfur Heavy Fuel Oil (2017-24-0114) Michel Cuijpers, Michael Golombok, Hylke Van Avendonk, Michael Boot , Eindhoven University of Technology.	Structure-Sensitive Reactions Over Ceria-Based Nanocatalysts: The Catalytic Oxidation of Soot and Carbon Monoxide (2017-24-0145) Marco Piumetti, Debora Fino, Nunzio Russo, Samir Bensaid, Melodj Dosa , Politecnico di Torino.
15:50	Experimental Investigation on a DI Diesel Engine Using Waste Plastic Oil Blended with Oxygenated Fuels (2017-24-0116) Ekarong Sukjit, Pansa Liplap, Somkiat Maithomklang, Weerachai Arjharn , Suranaree University of Technology.	How Much Regeneration Events Influence Particle Emissions of DPF-Equipped Vehicles? (2017-24-0144) Carlo Beatrice, Maria Antonietta Costagliola, Chiara Guido, Pierpaolo Napolitano, Maria Vittoria Prati , Istituto Motori CNR.
16:10	Experimental Investigation of Fuel Injection and Spark Timing for the Combustion of N-Butanol and Iso-Butanol and Their Blends With Gasoline in a Two-Cylinder SI Engine (2017-24-0115) Martin Pechout , Technical University of Liberec; Jan Czerwinski, Martin Güdel , Univ of Applied Sciences Biel-Bienne; Michal Vojtisek-Lom , Czech Technical Univ.	Experimental Investigations on the Sources of Particulate Emission within a Natural Gas Spark-Ignition Engine (2017-24-0141) Riccardo Amirante, Elia Distaso, Davide Pettinicchio, Paolo Tamburrano , Politecnico di Bari; Silvana Di Iorio, Paolo Sementa, Bianca Maria Vaglieco , Istituto Motori CNR.
16:30	Numerical Analysis of a Spark-Ignition Engine Fueled by Ethanol-Gasoline and Butanol-Gasoline Blends: Setting the Optimum Spark Advance (2017-24-0117) Fabio Scala, Enzo Galloni, Gustavo Fontana , DICEM-University of Cassino.	Comparison of Aircraft Emissions at Los Angeles International Airport (LAX) to Urban Vehicle Traffic Emissions Measured On-road of Major Freeways and assessment of its impact on air quality in Los Angeles (Oral Only) Constantinos Sioutas , University Southern California.
16:50	Passenger vehicle tests with renewable diesel fuel from forest industry residues (Oral Only) Ville Vauhkonen , UPM-Kymmene Corp.; Daniel Danielsson, Isaac Nilsson , AVL MTC AB.	
17:10	Fuels for sustainable mobility (Oral Only) Luca Baldini , SVILUPPO E ASSISTENZA TECNICA PRODOTTI FUEL (TEC-FUEL) Eni.	
17:30	SAE-NA Naples Section meeting	
20:30	Informal dinner	

Tuesday 12 September

9:20	Pressure-Temperature Domain Analysis to Provide Insight into Autoignition Processes in SI Engines at High Operating Load - <i>Jim Szybist</i> (ORNL) / Chairperson: <i>Bengt Johansson</i>	
10:00	Coffee break	
	Room Teatro	Room Donna Lucia
	0-D and 1-D Modeling and Numerics (ICE 101/2) Chairpersons: Christof Schernus, Fadila Maroteaux	Fuel Injection and Sprays: Experiments (ICE302) Chairpersons: Alessandro Montanaro, Josè V. Pastor
10:30	Experimental and Computational Investigation of a Quarter-Wave Resonator on a Large-Bore Marine Dual-Fuel Engine (2017-24-0017) Emanuele Servetto, Andrea Bianco , POWERTECH Engineering S.r.l.; Gennaro Caputo, Giuseppe Lo Iacono , Wärtsilä Italia S.p.a.	Development of Air-Assisted Urea Injection Systems for Medium Duty Trucks (2017-24-0112) Guanyu Zheng , WEICHAI POWER Emission Solutions.
10:50	A Fully Physical Correlation for Low Pressure EGR Control Linearization (2017-24-0011) Giulio Boccardo, Federico Millo, Andrea Piano , Politecnico di Torino; Luigi Arnone, Stefano Manelli, Cristian Capiluppi , Kohler Engines.	Instantaneous Flow Rate Testing with Simultaneous Spray Visualization of an SCR Urea Injector at Elevated Fluid Temperatures (2017-24-0109) Nic Van Vuuren , Continental Automotive Systems US Inc.; Lucio Postrioti, Gabriele Brizi, Federico Picchiotti , Università degli Studi di Perugia.
11:10	Physical Modeling of a Turbocharger Electric Waste-Gate Actuator for Control Purpose (2017-24-0003) Andreas Sidorow , BorgWarner Turbo Systems; Vincent Berger, Ghita Elouazzani , PSA Groupe.	Effect of Injector Nozzle Hole Geometry on Particulate Emissions in a Downsized Direct Injection Gasoline Engine (2017-24-0111) Heechang Oh, JuHun Lee, Seungkook Han, Jungho Lee, In Keun Seo, Sung Jae Kim , Hyundai Motor Company; Chansoo Park, Choongsik Bae , Korea Advanced Inst of Science & Tech.
11:30	Experimental Study of Centrifugal Compressor Speed Lines Extrapolation for Automotive Turbochargers (2017-24-0005) Guillaume Goumy, Pascal Chesse, Nicolas Perrot, Rémi Dubouil , Ecole Centrale De Nantes.	Injection Rate Measurement of GDI Systems Operating Against Sub-Atmospheric and Pressurized Downstream Condition (2017-24-0110) Lucio Postrioti, Giulio Caponeri , Università degli Studi di Perugia; Giacomo Buitoni , Shot-to-Shot Engineering, Italy.
11:50	Experimental Characterization and Modelling of Turbocharger Friction Losses (2017-24-0013) Nicolas Perrot, Pascal Chesse, Rémi Dubouil, Guillaume Goumy , Ecole Centrale De Nantes.	Experimental and Numerical Characterization of Diesel Injection in Single-Cylinder Research Engine with Rate Shaping Strategy (2017-24-0113) Ezio Mancaruso, Luigi Sequino, Bianca Maria Vaglieco , Istituto Motori CNR; Maria Cristina Cameretti , Univ of Napoli Federico II.
12:10	The Sensitivity of Transient Response Prediction of a Turbocharged Diesel Engine to Turbine Map Extrapolation (2017-24-0019) Alexander Mason, Aaron W. Costall , Imperial College London; John R. McDonald , Caterpillar Inc.	Transient Heat Transfer Characterization of a Gasoline Spray Impact Against Hot Surfaces: Experimental and Numerical Study (2017-24-0107) Alessandro Montanaro, Luigi Allocca, Vittorio Rocco, Michela Costa , Istituto Motori CNR; Daniele Piazzullo , Università di Roma "Tor Vergata".
12:30	A Pre-Design Model to Estimate the Effect of Variable Inlet Guide Vanes on the Performance Map of a Centrifugal Compressor for Automotive Applications (2017-24-0020) Michele Becciani, Alessandro Bianchini, Matteo Checucci, Andrea Arnone, Giovanni Ferrara , University of Florence; Lorenzo Ferrari , University of Pisa; Michele De Luca, Luca Marmorini , HPE-Coxa.	A Dynamic System Approach for the Experimental Characterization of a Multi-Hole Spray (2017-24-0106) Alessandro Montanaro, Luigi Allocca , Istituto Motori CNR; Amedeo Amoresano, Giuseppe Langella , Università Federico II.
12:50	A Flow and Loading Coefficient-based Compressor Map Interpolation Technique for Improved Accuracy of Turbocharged Engine Simulations (2017-24-0023) Karim Gharaibeh, Aaron W. Costall , Imperial College London.	Outward-Opening Hollow-Cone Spray Characterization by Experimental and Numerical Approach in Evaporative and Non-Evaporative Conditions (2017-24-0108) Alessandro Montanaro, Marianna Migliaccio, Luigi Allocca, Carlo Beatrice, Valentina Fraioli , Istituto Motori CNR; Roberto Ianniello , Univ. di Cassino e del Lazio Meridionale.
13:10	Lunch break	

Tuesday 12 September

	<i>Room Capri</i>	<i>Room Rotonda</i>
	LTC/HCCI/PCCI/RCCI (ICE203/2) Chairpersons: Antonio M. Garcia, Bengt Johansson	CI & SI Engines Technology (ICE501/2) Engine NVH (ICE502) Chairpersons: Agostino Gambarotta, Peter Eilts
10:30	Fuel Effect on Combustion Stratification in Partially Premixed Combustion (2017-24-0089) S. Vedharaj, R. Vallinayagam, Yanzhao An, Alaeldin Dawood, Bengt Johansson , King Abdullah Univ of Science & Tech; Mohammad Izadi Najafabadi, Bart Somers , Technische Universiteit Eindhoven; Junseok Chang , Saudi Aramco.	Evaluation of the Potential of Water Injection for Gasoline Engines (2017-24-0149) Fabian Hoppe , VKA, RWTH Aachen University; Matthias Thewes, Joerg Seibel, Andreas Balazs, Johannes Scharf , FEV Europe GmbH.
10:50	Low RON Gasoline Calibration on a Multi-Cylinder Compression Ignition Engine to Fulfill the Euro 6d Regulation (2017-24-0091) Hyun Woo Won , Aramco Fuel Research Center; Alexandre Bouet , Saudi Aramco; Joseph Kermani, Florence Duffour , IFP Energies Nouvelles.	Control of Microwave Plasma for Ignition Enhancement Using Microwave Discharge Igniter (2017-24-0156) Minh Khoi Le, Srinivas Padala, Atsushi Nishiyama, Yuji Ikeda , Imagineering Inc.
11:10	Effects of Low Temperature Combustion on Particle and Gaseous Emission of a Dual Fuel Light Duty Engine (2017-24-0081) Luigi De Simio, Michele Gambino, Sabato Iannaccone , Istituto Motori CNR.	Ignition of Propane-Air Mixtures by Miniaturized Resonating Microwave Flat Panel Plasma-Igniter (2017-24-0150) Srinivas Padala, Minh Khoi Le, Atsushi Nishiyama, Yuji Ikeda , Imagineering Inc.
11:30	A Kinetic Modelling Study of Alcohols Operating Regimes in a HCCI Engine (2017-24-0077) Matteo Pelucchi, Mattia Bissoli, Cristina Rizzo, Alessio Frassoldati, Tiziano Faravelli , Politecnico di Milano; Yingjia Zhang, Kieran Somers , National University of Ireland Galway; Henry Curran , National University of Ireland Galway.	Extension of Dilution Limit in Propane-Air mixtures Using Microwave Discharge Igniter (2017-24-0148) Srinivas Padala, Shashank Nagaraja, Yuji Ikeda, Minh Khoi Le , Imagineering Inc.
11:50	Combustion Indexes for Innovative Combustion Control (2017-24-0079) Vittorio Ravaglioli, Fabrizio Ponti, Filippo Carra, Enrico Corti , University of Bologna; Matteo De Cesare, Federico Stola , Magneti Marelli SpA - Powertrain.	Emission Spectroscopy Study of the Microwave Discharge Igniter in Ambient Air (2017-24-0153) Sergey Shcherbanev, Alexandre De Martino, Andrey Khomenko, Svetlana Starikovskaia , CNRS, Laboratory of Plasma Physics; Srinivas Padala, Yuji Ikeda , Imagineering Inc.
12:10		Development of a High Performance NG Engine Embedding Direct Gas Injection and Variable Valve Actuation (2017-24-0152) Mirko Baratta, Daniela Misul, Jijie Xu , Politecnico di Torino; Alois Fuerhapter, Rene Heindl , AVL LIST GmbH; Jean Preuhs, Patrick Salemi , Delphi Research & Development Labs.
12:30		In-Situ Measurements of the Piston and Connecting Rod Dynamics Correlated with TEHL-Simulation Techniques (2017-24-0157) Wolfgang Gross , IVK/Universitat Stuttgart; Ahmad Rabanizada, Konstantin Markstädter , University of Kassel; Harald Stoffels , Ford Werke GmbH; Michael Bargende , Universitat Stuttgart; Adrian Rienäcker , University of Kassel.
12:50		Combustion analysis under pre-ignition conditions: constraints and recommendations (Oral Only) M. Häfner, JC Lamodièrre, M. Müller , Kistler Instrumente AG, Winterthur, Switzerland; R. Dolt , Kistler Instrumente GmbH, Ostfildern, Germany.
13:10	Lunch break	

Tuesday 12 September

14:00	Investigations on Real World Fuel Consumption Reduction Potential of Hybrid Electric and Conventional Powertrain and Vehicles Using a Dedicated Simulation Platform - <i>Damien Maroteaux</i> Renault (France) / Chairperson: <i>Dario Sacco</i>	
14:40	Coffee break	
	Room Teatro	Room Donna Lucia
	Engine Management and Control (ICE104) Chairpersons: Nicolò Cavina, Domenico Brancale, Andy Ward	Combustion In Spark Ignition Engines (ICE201/1) Chairpersons: Christine M. Rousselle, Simona S. Merola
15:10	Investigation of Water Injection Effects on Combustion Characteristics of a GDI TC Engine (2017-24-0052) Nicolò Cavina, Nahuel Rojo, Andrea Businaro, Alessandro Brusa, Enrico Corti , University of Bologna; Matteo De Cesare , MAGNETI MARELLI SpA - Div. Powertrain.	A Study on Charge Motion Requirements for a Class-Leading GTDI Engine (2017-24-0065) Helmut Ruhland, Thomas Lorenz, Jens Dunstheimer, Albert Breuer, Maziar Khosravi , Ford Motor Company.
15:30	Boost Pressure Control in Transient Engine Load with turbocharger Speed Sensing (2017-24-0049) Matteo De Cesare, Federico Covassin, Enrico Brugnoli, Luigi Paiano , MAGNETI MARELLI SpA - Div. Powertrain.	The Reduced Effectiveness of EGR to Mitigate Knock at High Loads in Boosted SI Engines (2017-24-0061) James P. Szybist , Oak Ridge National Laboratory; Scott W. Wagnon, William J. Pitz, Marco Mehl , Lawrence Livermore National Lab; Derek Splitter , Oak Ridge National Laboratory.
15:50	A Control-Oriented Knock Intensity Estimator (2017-24-0055) Enrico Corti, Claudio Forte, Gian Marco Bianchi, Lorenzo Zoffoli , University of Bologna.	Highly Efficient Natural Gas Engines (2017-24-0059) Massimo Ferrera, Dario Sacco CRF SCpA.
16:10	Model-Based Control of BMEP and NOx Emissions in a Euro VI 3.0L Diesel Engine (2017-24-0057) Roberto Finesso, Omar Marello, Ezio Spessa, Yixin Yang , Politecnico di Torino; Gilles Hardy , FPT Motorenforschung AG.	Water Injection: A Technology to Improve Performance and Emissions of Down-Sized Turbocharged Spark Ignited Engines (2017-24-0062) Cinzia Tornatore, Daniela Siano, Luca Marchitto, Arturo Iacobacci, Gerardo Valentino , Istituto Motori CNR; Fabio Bozza , Univ of Naples - Istituto Motori CNR.
16:30	Surge Detection Using Knock Sensors (2017-24-0050) Anjan Rao Puttige, Robin Hamberg, Paul Linschoten, Goutham Reddy, Andreas Cronhjort , KTH Royal Institute of Technology; Ola Stenlaas , Scania CV AB.	Investigation of Knock Damage Mechanisms on a GDI TC Engine (2017-24-0060) Nicolò Cavina, Nahuel Rojo, Lorella Ceschini, Eleonora Balducci , University of Bologna; Luca Poggio, Lucio Calogero, Ruggero Cevolani , Ferrari Auto Spa.
16:50	Real Time Estimation of Particle Size Distribution at the Exhaust of a Diesel Engine by Using a Neural Network Model (2017-24-0051) Ferdinando Tagliatela, Mario Lavorgna , STMicroelectronics; Silvana Di Iorio, Ezio Mancaruso, Bianca Maria Vaglieco , Istituto Motori CNR.	High Energy Ignition System integrated with Ion Sensing (Oral Only) Alberto Grimaldi, Stefano Silva , ELDOR CORPORATION S.p.A.
17:10	Automated Model-Based Calibration Methodologies enhancing Accuracy, Time and Experimental Effort Savings through Regression Techniques, Neural Networks and 1D-CFD Simulation (2017-24-0054) Francesco de Nola, Andrea Molteni, Roberto Picariello , Teoresi S.p.A.; Giovanni Giardiello, Alfredo Gimelli, Massimiliano Muccillo , University Napoli Federico II - DII.	
17:30	A Correlation Methodology Between AVL Mean Value Engine Model and Measurements With Concept Analysis of Mean Value Representation for Engine Transient Tests (2017-24-0053) Silvio A. Pinamonti, Domenico Brancale , AVL Italia SRL; Gerhard Meister , AVL LIST GmbH; Pablo Mendoza , CNH Industrial.	

Tuesday 12 September

	<i>Room Capri</i>	<i>Room Rotonda</i>
	Fuel Injection and Sprays: Modeling (ICE301) Chairpersons: Michele Battistoni, Kelly Senecal	Combustion in Compression Ignition Engines (ICE202/1) Chairpersons: Pierluigi Rellecati, Marco Tonetti
15:10	Parametric Analysis of the Effect of the Fluid Properties and the Mesh Setup by Using the Schnerr-Sauer Cavitation Model (2017-24-0105) Stefania Falfari, Gian Marco Bianchi, Giulio Cazzoli , University of Bologna; Claudio Forte , NAIS ENGINEERING; Sergio Negro , Univ of Toronto.	Analysis of a Prototype High-Pressure Hollow Cone Spray Diesel Injector Performance in Optical and Metal Research Engines (2017-24-0073) Carlo Beatrice, Giacomo Belgiorno, Gabriele Di Blasio, Ezio Mancaruso, Luigi Sequino, Bianca Maria Vaglieco , Istituto Motori CNR.
15:30	Numerical simulation of a Direct-Acting Piezoelectric Prototype Injector Nozzle Flow for Partial Needle Lifts (2017-24-0101) Pedro Marti-Aldaravi, Jaime Gimeno , Universitat Politecnica de Valencia; Kaushik Saha, Sibendu Som , Argonne National Laboratory.	Neural-Network Based Approach for Real-Time Control of BMEP and MFB50 in a Euro6 Diesel Engine (2017-24-0068) Roberto Finesso, Ezio Spessa, Yixin Yang , Politecnico di Torino; Giuseppe Conte, Gennaro Merlino , General Motors Global Propulsion Systems.
15:50	Statistical Approach on Visualizing Multi-Variable Interactions in a Hybrid Breakup Model under ECN Spray Conditions (2017-24-0104) Daniel M. Nsikane , Univ of Brighton, Ricardo UK Ltd; Kenan Mustafa, Andrew Ward , Ricardo UK Ltd; Robert Morgan, David Mason, Morgan Heikal , Univ of Brighton.	Spray and Combustion of Diesel Fuel under Simulated Cold-Start Conditions at Various Ambient Temperatures (2017-24-0069) Hyunwook Park , Korea Advanced Inst of Science & Tech; Jugon Shin , Korea Electric Power Research Institute; Choongsik Bae , Korea Advanced Inst of Science & Tech.
16:10	Fuel Injection Analysis with a Fast Response 3D-CFD Tool (2017-24-0103) Marlene Wentsch, Marco Chiodi , FKFS; Michael Bargende , FKFS/IVK, University of Stuttgart.	Soot Oxidation in Periphery of Diesel Spray Flame via High-speed Sampling and HR-TEM Observation (2017-24-0067) Yoshiaki Toyama, Nozomi Takahata, Katsufumi Kondo, Tetsuya Aizawa , Meiji University.
16:30	Two Concepts of Pumping Fuel in a Gasoline Injector (2017-24-0102) N Balasubramanian, Jayabalan Sethuraman , Stanadyne India Private Limited; Titus Iwaszkiewicz , Stanadyne LLC .	Performance Improvement and Emission Control of a Dual Fuel Operated Diesel Engine (2017-24-0066) Maria Cristina Cameretti, Roberta De Robbio, Raffaele Tuccillo , University of Naples Federico II - Italy.

Wednesday 13 September

9:00	From T2W to LCA-zero-CO2 mobility concepts and their different shades of green - <i>Christof Schernus</i> FEV (Germany) / Chairperson: Federico Millo	
9:40	Co-Optimization of Fuels and Engines (Co-Optima) - <i>John Farrell National</i> Renewable Energy Laboratory, NREL (USA) / Chairperson: Jim Szybist	
10:20	Coffee break	
	Room Teatro	Room Donna Lucia
	0-D and 1-D Modeling and Numerics (ICE 101/3) Chairpersons: Marc Sens, Federico Millo	Exhaust Emission Control Systems (ICE401) Chairpersons: Cary Henry, Giovanna Nicol
10:50	Estimating the CO2 Emissions Reduction Potential of Various Technologies in European Trucks using VECTO Simulator (2017-24-0018) Nikiforos Zacharof , ICCT; Georgios Fontaras, Theodoros Grigoratos, Biagio Ciuffo , European Commission Joint Research; Dimitrios Savvidis , European Commission - DG CLIMA; Oscar Delgado, J. Felipe Rodriguez , ICCT.	Optical and Analytical Studies on DPF Soot Properties and Consequences for Regeneration Behavior (2017-24-0126) Christian Zöllner, Dieter Brueggemann , Bayreuth Engine Research Center (BERC).
11:10	Comparison of Eulerian and Lagrangian Models of Diesel Fuel Injection and Combustion (2017-24-0006) Alejandro Aljure, Xavier Tautzia, Alain Maiboom , Ecole Centrale de Nantes.	Investigations of Lean NOx Trap (LNT) Regeneration Strategy for Diesel Engines (2017-24-0124) Michael Maurer, Peter Holler, Stefan Zarl, Thomas Fortner , BMW Group Werk Steyr; Helmut Eichseder , Graz University of Technology.
11:30	Development of a Spray-Based Phenomenological Soot Model for Diesel Engine Applications (2017-24-0022) Alessio Dulbecco, Gregory Font , IFP Energies Nouvelles, Institut Carnot IFPEN TE.	Comparative Investigation of Traditional and Innovative Emission Control Systems for Lean Burn Engines - an Energetic Analysis (2017-24-0125) Angelo Algieri, Pietropaolo Morrone, Teresa Castiglione, Sergio Bova , University of Calabria; Jessica Settino , University of Malta.
11:50	Experimental and Numerical Assessment of Multi-Event Injection Strategies in a Solenoid Common-Rail Injector (2017-24-0012) Andrea Piano, Giulio Boccardo, Federico Millo , Politecnico di Torino; Andrea Cavicchi, Lucio Postriotti , Università degli Studi di Perugia; Francesco Concetto Pesce , General Motors Global Propulsion Systems.	Control Oriented Modeling of SCR Systems for Automotive Application (2017-24-0121) Ivan Arsie, Giuseppe Cialeo, Federica D'Aniello, Cesare Pianese , Università di Salerno; Matteo De Cesare, Luigi Paiano , Magneti Marelli SpA Powertrain.
12:10	Digital Shaping and Optimization of Fuel Injection Pattern for a Common Rail Automotive Diesel Engine through Numerical Simulation (2017-24-0025) Francesco Sapio, Andrea Piano, Federico Millo , Politecnico di Torino; Francesco Concetto Pesce , General Motors Global Propulsion Systems.	Robust DPF Regeneration Control for Cost-Effective Small Commercial Vehicles (2017-24-0123) Christopher Eck , ISUZU MOTORS Germany GmbH; Futoshi Nakano , ISUZU MOTORS Limited Japan.
12:30	Numerical Investigation on the Effects of Different Thermal Insulation Strategies for a Passenger Car Diesel Engine (2017-24-0021) Sabino Caputo, Federico Millo , Politecnico di Torino; Giancarlo Cifali, Francesco Concetto Pesce , General Motors Global Propulsion Systems.	Fundamental Study of GPF Performance on Soot and Ash Accumulation Over Artemis Urban and Motorway Cycles - Comparison of Engine Bench Results with GPF Durability Study on Road (2017-24-0127) Lauretta Rubino , GM Europe Rüsselsheim; Dominic Thier, Torsten Schumann , NGK Europe GmbH; Stefan Guettler, Gerald Russ , University Of Applied Sciences.
12:50	Numerical Analysis on the Potential of Different Variable Valve Actuation Strategies on a Light Duty Diesel Engine for Improving Exhaust System Warm Up (2017-24-0024) Andrea Piano, Federico Millo , Politecnico di Torino; Davide Di Nunno, Alessandro Gallone , General Motors Global Propulsion Systems.	Exhaust Emissions Control: 60 Years of Innovation and Development (2017-24-0120) (Written Only) Matthew Keenan , Ricardo UK, Ltd.
13:10	Numerical Simulation of the Combustion Process of a High EGR, High Injection Pressure, Heavy Duty Diesel Engine (2017-24-0009) Federico Millo, Giulio Boccardo, Andrea Piano , Politecnico di Torino; Luigi Arnone, Stefano Manelli, Giuseppe Tutore, Andrea Marinoni , Kohler Engines.	
13:30	Lunch break	

Wednesday 13 September

	<i>Room Capri</i>	<i>Room Rotonda</i>
	Combustion in Gaseous-Fueled Engines (ICE204) Chairpersons: Greg Roberts, Paolo Sementa	Multi-Dimensional Engine Modeling (ICE102/1) Chairpersons: Michela Costa, Gianluca Montenegro
10:50	Analysis of Scavenged Pre-Chamber for Light Duty Truck Gas Engine (2017-24-0095) Zbynek Syrovatka, Michal Takats, Jiri Vavra , Czech Technical Univ.	Gas Exchange and Injection Modeling of an Advanced Natural Gas Engine for Heavy Duty Applications (2017-24-0026) Davide Paredi, Tommaso Lucchini, Gianluca D'Errico, Angelo Onorati , Politecnico di Milano; Stefano Golini, Nicola Rapetto , FPT Industrial SpA.
11:10	Spray Model Based Phenomenological Combustion Description and Experimental Validation for a Dual Fuel Engine (2017-24-0098) Christophe Barro , ETH Zurich / Vir2sense; Curdin Nani, Richard Hutter, Konstantinos Boulouchos , ETH Zurich.	Sensitivity of Flamelet Combustion Model to Flame Curvature for IC Engine Application (2017-24-0038) Golnoush Ghiasi, Irfan Ahmed, Nedunchezian Swaminathan , University of Cambridge; Yuri M. Wright , ETH Zurich/ Combustion+FlowSolutions GmbH; Jann Koch , ETH Zurich.
11:30	Experimental and Numerical Investigation of the Engine Operational Conditions Influences on a Small Un-Scavenged Pre-Chambers Behavior (2017-24-0094) Guoqing XU , ETH Zürich / Liebherr Machines Bulle SA; Yuri Martin Wright, Panagiotis Kyrtatos, Konstantinos Bardis, Michele Schiliro , Liebherr Machines Bulle SA; Konstantinos Boulouchos , ETH Zürich.	A Zonal-LES Study of Steady and Reciprocating Engine-like Flows Using a Modified Two-Equation DES Turbulence Model (2017-24-0030) Vesselin Krassimirov Krastev , University of Tuscia; Luca Silvestri, Giacomo Falcucci, Gino Bella , University of Rome "Tor Vergata".
11:50	Natural Gas Fueled Engines Modeling under Partial Stratified Charge Operating Conditions (2017-24-0093) Lorenzo Bartolucci, Stefano Cordiner, Vincenzo Mulone, Vittorio Rocco , University of Rome Tor Vergata.	Development of a Reduced Chemical Mechanism for Combustion of Gasoline-Biofuels in Spark Ignition Engine Application (2017-24-0039) Daniele Piazzullo , Università di Roma "Tor Vergata"; Michela Costa, Vittorio Rocco , CNR - Istituto Motori; Youngchul Ra, Ankith Ullal , Michigan Technological University.
12:10	Particle Formation and Emissions in an Optical Small Displacement SI Engine Dual Fueled with CNG DI and Gasoline PFI (2017-24-0092) Francesco Catapano, Silvana Di Iorio, Paolo Sementa, Bianca Maria Vaglieco , Istituto Motori CNR.	Assessment of Port Water Injection Strategies to Control Knock in a GDI Engine Through Multi-Cycle CFD Simulations (2017-24-0034) Michele Battistoni, Carlo N. Grimaldi, Valentino Cruccolini, Gabriele Discepoli , Università degli Studi di Perugia; Matteo De Cesare , MAGNETI MARELLI SpA - Div. Powertrain.
12:30	Experimental Investigation of Orifice Design Effects on a Methane Fueled Prechamber Gas Engine for Automotive Applications (2017-24-0096) Laura Sophie Baumgartner, Stephan Karmann, Fabian Backes, Andreas Stadler, Georg Wachtmeister , Technical University of Munich.	Experimental Validation of Combustion Models for Diesel Engines Based on Tabulated Kinetics in a Wide Range of Operating Conditions (2017-24-0029) Tommaso Lucchini, Gianluca D'Errico, Tarcisio Cerri, Angelo Onorati , Politecnico di Milano; Gilles Hardy , FPT Motorenforschung AG.
12:50	Fundamental Aspects of Jet Ignition for Natural Gas Engines (2017-24-0097) Epaminondas Mastorakos, Patton Allison, Andrea Giusti, Pedro De Oliveira , University of Cambridge; Sotiris Benekos, Yuri Wright, Christos Frouzakis , ETH Zurich; Konstantinos Boulouchos , Swiss Federal Institute of Tech.	Effect of EGR on Performance and Emission Characteristics of a GDI engine A CFD Study (2017-24-0033) Priyanka Dnyaneshwar Jadhav, J M Mallikarjuna , Indian Institute of Technology, Madras.
13:10	Chemical Imaging in a Diesel-Ignited Dual-Fuel Optical Engine Using High-Speed Infrared Narrowband Imaging (Oral Only) Eric Guyot, Marc-André Gagnon, Pierre Tremblay, Simon Savary, Vincent Farley , Telops Inc. Ezio Mancaruso, Luigi Sequino , Istituto Motori CNR.	Effect of Mixture Distribution on Combustion and Emission Characteristics in a GDI Engine A CFD Analysis (2017-24-0036) S Krishna Addepalli, Om Prakash Saw, J M Mallikarjuna , Indian Institute of Technology Madras.
13:30	Lunch break	

Wednesday 13 September

14:30	Optical Techniques That Can Be Applied to Investigate GDI Engine Combustion - <i>Richard Stone</i> Oxford University (UK) / Chairperson: <i>Angelo Onorati</i>	
15:10	Coffee break	
	Room Teatro	Room Donna Lucia
	Emissions Measurement and Testing (ICE403/1) Chairpersons: Imad Khalek, Dimitrios Zarvalis	Combustion In Spark Ignition Engines (ICE201/2) Chairpersons: James Turner W. G., Simona S. Merola
15:40	A Review of State-of-the-Art Particle Sensors for Onboard Diagnostics & Emission Monitoring (Oral Only) Imad Khalek , Southwest Research Institute.	CFD Optimization of n-Butanol Mixture Preparation and Combustion in an Research GDI Engine (2017-24-0063) Sebastiano Breda, Alessandro D'Adamo, Stefano Fontanesi, Marco Del Pecchia , Università di Modena e Reggio Emilia; Simona Merola, Adrian Irimescu , Istituto Motori CNR .
16:00	Analysis of the Influence of Outdoor Temperature in Vehicle Cold-Start Operation Following EU Real Driving Emissions Test Procedure (2017-24-0140) Roberto Aliandro Varella , University of Lisbon - IST; Gonçalo Duarte, Patricia Baptista , IN+ - IST (ULisboa); Pablo Mendoza Villafuerte , CNH Industrial; Luis Sousa , IDMEC - IST (ULisboa).	X-Ray Radiography Measurements of the Thermal Energy in Spark Ignition Plasma at Variable Ambient Conditions (2017-24-0178) Katarzyna E. Matusik, Daniel J. Duke, Alan L. Kastengren, Christopher F. Powell , Argonne National Laboratory.
16:20	Statistical Determination of Local Driving Cycles Based on Experimental Campaign as WLTC Real Approach (2017-24-0138) Giovanni Meccariello, Livia Della Ragione , Istituto Motori CNR.	Characterization of Knock Tendency and Onset in a GDI Engine by Means of Conventional Measurements and a Non-Conventional Flame Dynamics Optical Analysis (2017-24-0099) Francesco Catapano, Paolo Sementa, Bianca Maria Vaglieco , Istituto Motori CNR.
16:40	Optimization of Emissions Control Components by Particle Size Distribution Measurements (Oral Only) Severine Dubroecq , TSI.	Simulation Research on the Combustion Characteristics of Lean-Burn Natural Gas Engine under Different Ignition Timings and Ignition Energies (2017-24-0064) (Written Only) En-Zhe Song, Shi-Chao Chu, Li-Ping Yang, Zhen-Ting Liu , Harbin Engineering University.
17:00	Measurement of aerosol particle number concentrations down to 1 nm from car emissions (Oral Only) Joonas Vanhanen AIRMODUS.	
17:20	Understanding and Measuring Sub-23 nm Particle Emissions from Direct Injection Engines (Oral Only) E. Papaioannou, D. Zarvalis, N. Vlachos, A.G. Konstandopoulos, M. Fierz , APTL; G. Nicol, M. Sgroi , Centro Ricerche Fiat; S. Zinola , IFP Energies nouvelles; B. M. Vaglieco, S. Di Iorio , Istituto Motori CNR; C. Barrios , SEADM S.L.; P. M. Moselund , NKT Photonics; H. Burtscher , Institute for Aerosol und Sensor Technology.	
20:00	Social dinner	

Wednesday 13 September

	<i>Room Capri</i>	<i>Room Rotonda</i>
	LTC/HCCI/PCCI/RCCI (ICE203/3) Chairpersons: Antonio M. Garcia, Bengt Johansson	Combustion in Compression Ignition Engines (ICE202/2) Chairpersons: Maria C. Cameretti, Chiara Guido
15:40	Parametric Analysis of the Effect of Pilot Quantity, Combustion Phasing and EGR on Efficiencies of a Gasoline PPC Light-Duty Engine (2017-24-0084) Giacomo Belgiorno, Gabriele Di Blasio, Carlo Beatrice, Istituto Motori CNR; Nikolaos Dimitrakopoulos, Martin Tuner, Per Tunestal, Lund University.	Comparing the Effect of Fuel/Air Interactions in a Modern High-Speed Light-Duty Diesel Engine (2017-24-0075) Felix Leach, Riyaz Ismail, Martin Davy, University of Oxford; Adam Weall, Brian Cooper, Jaguar Land Rover.
16:00	Influence of Blend Ratio and Injection Parameters on Combustion and Emissions Characteristics of Natural Gas-Diesel RCCI Engine (2017-24-0083) Hassan Khatamnejad, Shahram Khalilarya, Samad Jafarmadar, Urmia University; Mostafa Mirsalim, Amirkabir University; Mufaddel Dahodwala, FEV North America Inc.	Zero Dimensional Models for EGR Mass- Rate and EGR Unbalance Estimation in Diesel Engines (2017-24-0070) Stefano D'Ambrosio, Daniele Iemmolo, Alessandro Mancarella, Nicolò Salamone, Roberto Vitolo, Politecnico di Torino; Gilles Hardy, FPT Motorenforschung AG.
16:20	The Influence of High Reactivity Fuel Properties on Reactivity Controlled Compression Ignition Combustion (2017-24-0080) Ross Ryskamp, Gregory Thompson, Daniel Carder, West Virginia University; John Nuzskowski, University of North Florida.	Functional Requirements to Exceed the 100 kW/l Milestone for High Power Density Automotive Diesel Engines (2017-24-0072) Gabriele Di Blasio, Carlo Beatrice, Giacomo Belgiorno, Istituto Motori CNR; Francesco Concetto Pesce, Alberto Vassallo, General Motors.
16:40	RCCI Combustion Regime Transitions in a Single-Cylinder Optical Engine and a Multi-Cylinder Metal Engine (2017-24-0088) Gregory Roberts, Mark Musculus, Sandia National Laboratories; Christine Mounaim Rousselle, Universite D'Orleans; Martin Wissink, Scott Curran, Oak Ridge National Laboratory; Ethan Eagle, Wayne State University.	N-heptane Ignition Delay Time Model for Two Stage Combustion Process (2017-24-0071) Fadila Maroteaux, University of Versailles Saint Quentin; Bianca Maria Vaglieco, Istituto Motori CNR.
17:00	Ammonia-Hydrogen Blends in Homogeneous-Charge Compression-Ignition Engine (2017-24-0087) Maxime Pochet, Hervé Jeanmart, Université catholique de Louvain; Ida Truedsson, Fabrice Foucher, Université d'Orléans; Francesco Contino, Vrije Universiteit Brussel.	The Effect of Cycle-to-Cycle Variations on the NO _x -SFC tradeoff in Diesel Engines under Long Ignition Delay Conditions (2017-24-0100) Panagiotis Kyrtatos, ETH Zurich and Vir2sense GmbH; Antonio Zivolic, Clemens Brueckner, Konstantinos Boulouchos, ETH Zurich.
17:20	Octane sensitivity and the two-stage ignition behavior (Oral Only) Angela Violi, University of Michigan Energy Institute.	
20:00	Social dinner	

Thursday 14 September

9:00	Current state-of-the-art in fuel injection and spray modeling for internal combustion engine simulations - <i>Kelly Senecal</i> Convergent Science (USA) / Chairperson: <i>Xandra Margot</i>	
9:40	Coffee break	
	<i>Room Teatro</i>	<i>Room Donna Lucia</i>
	Multi-Dimensional Engine Modeling (ICE102/2) Chairpersons: Xandra Margot, Tommaso Lucchini	Controls for Hybrids and Electric Powertrains (ICE602) Advanced Hybrid and Electric Vehicle Powertrains (ICE601) Advanced Fuel Cell Vehicle Applications (ICE603) Chairpersons: Cesare Pianese.
10:10	Chemical Kinetics and Computational Fluid-Dynamics Analysis of H ₂ /CO/CO ₂ /CH ₄ Syngas Combustion and NO _x Formation in a Micro-Pilot-Ignited Supercharged Dual Fuel Engine (2017-24-0027) Nearchos Stylianidis, Ulugbek Azimov, Northumbria University; Nobuyuki Kawahara, Eiji Tomita, Okayama University.	Automatic Generation of Online Optimal Energy Management Strategies for Hybrid Powertrain Simulation (2017-24-0173) Jean-Charles Dabadie, Antonio Sciarretta, Gregory Font, Fabrice Le Berr, IFP Energies Nouvelles, Institut Carnot IFPEN TE.
10:30	Investigation of Sub-Grid Model Effect on the Accuracy of In-Cylinder LES of the TCC Engine Under Motored Conditions (2017-24-0040) Insuk Ko, Kyoungdoug Min, Seoul National Univ; Federico Rulli, Alessandro D'Adamo, Fabio Berni, Stefano Fontanesi, Università degli Studi di Modena.	Composition Platform for Conventional and Hybrid Powertrains (2017-24-0172) Haijun Chen, Lin Li, Mark Schudeleit, Andreas Lange, Ferit Küçükay, Institute of Automotive Engineering; Christian Stamme, Peter Eilts, Institute of Internal Combustion Engines.
10:50	A 3D CFD Simulation of an Impacting ECN Spray G Accounting for Heat Transfer Effects on Wallfilm Formation (2017-24-0041) Daniele Piazzullo, Università di Roma "Tor Vergata"; Michela Costa, Luigi Allocca, Alessandro Montanaro, Vittorio Rocco, Istituto Motori CNR.	Influence of Fuel Type on the Performance of a Plug-In Fuel Cell/Battery Hybrid Vehicle with On-Board Fuel Processing (2017-24-0174) Laura Tribioli, Raffaello Cozzolino, Daniele Chiappini, University of Rome Niccolò Cusano; Paolo Iora, University of Brescia.
11:10	Influence of Nozzle Eccentricity on Spray Structures in Large Marine Diesel Sprays (2017-24-0031) Imre Gergely Nagy, Winterthur Gas & Diesel Ltd. / NTUA-DME; Andrea Matrisciano, Chalmers Univ. of Technology; Harry Lehtiniemi, LOGE AB; Fabian Mauss, Brandenburg Univ. of Technology; Andreas Schmid, Winterthur Gas & Diesel Ltd.	
11:30	Large-Eddy Simulations of a Speed Transient Performed on a Motored Gasoline Engine (2017-24-0028) Adèle Poubeau, Stephane Jay, Anthony Robert, Edouard Nicoud, Christian Angelberger, IFP Energies Nouvelles, Institut Carnot IFPEN TE.	
11:50	Evaluation of Wall Heat Flux Models for Full Cycle CFD Simulation of Internal Combustion Engines Under Motoring Operation (2017-24-0032) Gilles Decan, Stijn Broekaert, Jan Vierendeels, Sebastian Verhelst, Ghent University; Tommaso Lucchini, Gianluca D'Errico, Politecnico di Milano.	
12:10	A Chemical-Kinetic Approach to the Definition of the Laminar Flame Speed for the Simulation of the Combustion of Spark-Ignition Engines (2017-24-0035) Giulio Cazzoli, Gian Marco Bianchi, Stefania Falfari, University of Bologna; Claudio Forte, NAIS; Sergio Negro, University of Toronto.	
12:30	Closing Remarks Robert M. Wagner, Oak Ridge NL (USA) Bianca Maria Vaglieco, Istituto Motori-CNR (Italy)	

Thursday 14 September

	<i>Room Capri</i>	<i>Room Rotonda</i>
	Emissions Measurement and Testing (ICE403/2) Chairpersons: Imad Khalek, Silvana Di Iorio	Thermal Management (ICE503) Chairpersons: Michael Bargende, Marlene Wentsch
10:10	Estimation of DPF Soot Loading through Steady-state Engine Mapping and Simulation for Automotive Diesel Engines Running on Petroleum-Based Fuels (2017-24-0139) Francesco Barba, Vincenzo Greco , General Motors Global Propulsion Systems; Alberto Vassallo , GM Powertrain.	A New Insulation Concept for Heavy-Duty Diesel Engines to Reduce Heat Loss from the Wall (2017-24-0161) Noboru Uchida, Hideaki Osada , New ACE Inst. Co., Ltd.
10:30	The Impact of WLTP on the Official Fuel Consumption and Electric Range of Plug-in Hybrid Electric Vehicles in Europe (2017-24-0133) Jelica Pavlovic, Alessandro Tansini, Georgios Fontaras, Biagio Ciuffo, Marcos Garcia Otura, Germana Trentadue, Ricardo Suarez Bertoa , European Commission Joint Research Centre; Federico Millo , Politecnico di Torino.	A Model Approach to the Sizing of an ORC Unit for WHR in Transportation Sector (2017-24-0159) Davide Di Battista, Marco Di Bartolomeo, Carlo Villante, Roberto Cipollone , Università degli Studi dell'Aquila.
10:50	Further Analysis of the Effect of Oxygen Concentration on the Thermal Aging of Automotive Catalysts (2017-24-0136) Kurtis James Irwin, Roy Douglas , Queen's University of Belfast; Jonathan Stewart, Andrew Pedlow, Rose Mary Stalker, Andrew Woods , Catagen Limited.	A Controllable Engine Cooling Pump Based on a Magnetorheological Fluid Clutch (2017-24-0160) Mario Marchetti , A. Abete S.R.L.; Riccardo Russo, Salvatore Strano, Mario Terzo , University of Naples Federico II.
11:10	Fast Hybrid Sensor for PM of Production CI Engines (2017-24-0137) Zhen Zhang, Luigi del Re, Richard Fuerhapter , Johannes Kepler University Linz.	ICE Thermal Management: a Model Predictive Control Approach for CO2 Reduction (2017-24-0158) Teresa Castiglione, Giuseppe Franzè, Angelo Algieri, Pietropaolo Morrone, Sergio Bova , University of Calabria.
11:30	Development of a Gasoline Particulate Filter for China 6(b) Emission Standards (2017-24-0135) Shuxia Miao, Lin Luo, Yan Liu, Zhangsong Zhan , Changan Automobile Co., Ltd.	Complete Engine Thermal Model, a Comprehensive Approach (Oral Only) Mirko Bovo , Volvo cars.
11:50	Investigation of Urea Derived Deposits Composition (Oral Only) Scott Eakle, Svitlana Kroll, Cary Henry, Michael J. Rubal PhD , Southwest Research Institute.	
12:30	Closing Remarks Robert M. Wagner , Oak Ridge NL (USA) Bianca Maria Vaglieco , Istituto Motori-CNR (Italy)	

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