20 MARCH

TUESDAY

REGISTRATION OPENS
07:30
Welcome, Rainer Rothbauer, Convergent Science

KEYNOTE | Diesel Engine Combustion System Analysis Led Design at Cummins, John M. Deur, Cummins Inc.
Validation of Numerical Simulation of Hyundai 2.0L Gasoline Engine In-Cylinder Flow, Minho Choi, Hyundai Motor Company
Using Numerical Simulations to Predict and Understand CCV, Muhsin M. Ameen, Argonne National Laboratory

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BREAK
09:50

NUMERICAL STUDY OF KNOCK INHIBITION WITH COOLED EXHAUST GAS RECIRCULATION, Max Majd, RWTH Aachen University - Institute for Combustion Engines
Analysis of Water Injection Potential for Knock Mitigation, Federico Millo, Politecnico di Torino
Numerical Investigation and Sensitivity Analysis of Knock in Boosted GDI Engines, Mazyar Khosravi, Ford-Werke GmbH
Computational Methodology for Knocking Combustion Analysis, Ricardo Novella, CMT Motorex

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LUNCH
12:10

Pre-Mixed Combustion Model for PFI Gasoline Engine, Chetan Tulapurkar, Robert Bosch Engineering & Business Solutions Private Limited
Investigation of an Air Compressor Performance with FSI Simulation, Cem Demirkesen, Ford Otosan
FSI Simulation Study on a Mechanic Gas Stopper Movement at Different Pressures, Gokhan Coskun, Sakarya University

BREAK
15:20

Simulation and Optimization of Flow Inside Claw Vacuum Pumps, James Wijes, Gardner Denver Schopfheim GmbH
Multiphase Modeling: Gearbox Power Losses, Oil Pump Cavitation, and Fuel Tank Sloshing, David Rowinski, Convergent Science

NETWORKING
20:30

All meet in the Savoia Hotel lobby
Bus departs for Ferrari Museum Maranello
Event annual at Ferrari Museum
Ferrari Museum guided tour
Cocktails
Dinner at Ferrari Museum Convention Hall
Bus departs for Savoia Hotel

afternoon

11:30

Investigation of an Air Compressor Performance with FSI Simulation, Cem Demirkesen, Ford Otosan
14:30

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15:40

Simulation and Optimization of Flow Inside Claw Vacuum Pumps, James Wijes, Gardner Denver Schopfheim GmbH

17:55

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21 MARCH 2023

WEDNESDAY

07:45 REGISTRATION
08:00 Welcome Back – Combustion Modeling Development in CONVERGE, Eric Pomraning, Convergent Science
08:20 KEYNOTE | How Combustion CFD Makes Design More Robust and Reduces Costs, Alexandre Raulot, Groupe PSA

10:00 BREAK
10:10 Combustion Modeling of a NG Engine Using Detailed Chemistry in CONVERGE, Lorenzo Bartolucci, University of Rome Tor Vergata
10:20 Consideration of Turbulence-Chemistry-Interaction in Dual Fuel Combustion, Christoph Wieland, Technical University Munich
10:30 Modeling of Direct Gas Injection in Internal Combustion Engines, Abhishek Y. Deshmukh, RWTH Aachen Univ. - Institute for Combustion Technology

11:10 Break
11:20 Numerical Studies of Combustion Recession on ECN Diesel Spray A, XiaoHang Fang, University of Oxford
11:30 An Efficient Combustion Progress Variable (CPV) Approach for Engine Applications, Corinna Netzer, Brandenburg University of Technology
11:40 Assessment of Innovative Bowl Geometries Over Different Swt Ratios EGR Rates, Andrea Ronco, Fraunhofer Engineering
11:50 Computational Optimization of DME Combustion using CONGO, Maria Juzel, RWTH Aachen University, Institute for Combustion Engines
12:10 LUNCH

13:20 A Numerical Study on Aerodynamics and Mixing Effects on Prechamber Ignition System, Nicolas Arata, IFP Energies nouvelles
13:30 Numerical Prediction of Abnormal Combustion in a Turbocharged GDI Engine, Marius Zubel, RWTH Aachen University, Institute for Combustion Engines
13:40 SMART Optimization of Internal Combustion Models, Tsai Cangui, Nexus Solutions W

14:20 Recent Progress in Simulations of Nozzle Flow and Ensuing Spray at Argonne, Roberta Torrell, Argonne National Laboratory
14:30 VOI-LES Simulations of Primary Atomization and Near-Nozzle Spray Structure, Michele Battistoni, University of Perugia
14:40 LES of a Premixed Burner Using Thickened Flame Model and ANR, Crista Mej AI/energy nauseate
14:50 Scavenging Efficiency of Semi-Open Ignition Chamber, Fabio Ciccateri, Finno Energy Oy Ltd
15:00 What to Expect in CONVERGE Version 3.0, Keith Richards, Convergent Science
15:10 Closing Statements, Kelly Smegal, Convergent Science

18:30 All meet in the Savoia Hotel lobby
18:45 Bus departs for Bologna city center
19:15 Informal dinner at Osteria de’ Poeti
22:30 First bus departs for Savoia Hotel
23:30 Second bus departs for Savoia Hotel

Sala Savoia, Sala Falco, Sala Gloria

Afternoon