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Associazione Italiana
delle Macchine a fluido
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l'Energia e l'Ambiente



**Politecnico
di Torino**

Giornata di Studio **Motori a Combustione Interna** **15 Gennaio 2025**

Auditorium Energy Center – Politecnico di Torino

Via Paolo Borsellino, 38 int.16, 10138 Torino

AGENDA

Orario	Titolo	Relatori
08:15-08:45	Registrazione - Welcome Coffee	
08:45-09:00	Saluti di Benvenuto	AIMSEA DENERG - PoliTO
09:00-09:20	Towards Low Emissions Engines Fed with Carbon Neutral Fuels	Cesare Pianese, Università di Salerno Ivan Arsie, Università di Napoli Parthenope
09:20-09:40	Dal banco alla strada: la verifiche sperimentali a bordo veicolo	Davide Di Battista, Università dell'Aquila
09:40-10:00	Numerical modelling and experimental activities on ethanol fueled engines	Teresa Castiglione, Università della Calabria
10:00-10:20	Hydrogen and Ammonia as Fuels for ICEs: Injection and Combustion Research Activities at UniPG	Battistoni Michele, Università di Perugia
10:20-10:40	Modeling, Control and Testing of Sustainable ICE Concepts	Nicolò Cavina, Università di Bologna
10:40-11:00	Modeling of Internal Combustion Engines Operated with Alternative Fuels	Lorenzo Sforza, Politecnico di Milano
11:00-11:30	Coffee Break	
11:30-11:50	An Ignition Model for Premixed Combustion in SI Engines: Model Development and OSCC Data Validation	Marco Pretto, Università di Udine
11:50-12:10	A model-based estimation of flame kernel formation time for hydrocarbons and carbon-free fuels: validation against ultra-lean PFI H2-ICE data	Fabio Bozza, Università di Napoli Federico II
12:10-12:35	Keynote Address from Industry Expert: H2-ICE: a Sustainable Powertrain for Reaching NET-ZERO Carbon Emissions	Alberto Vassallo, Dumarey Automotive Italia SPA
12:35-13:00	Keynote Address from Industry Expert: Ways to Decarbonize the Heavy Duty Transport	Stefano Golini, FPT Industrial

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13:00-14:00	Lunch Break	
14:00-14:20	Ricordo Carlo Ferraro e Enrico Antonelli	Patrizio Nuccio, Federico Millo, Politecnico di Torino
14:20-14:40	Sviluppo di Tecniche Numeriche e Sperimentali per l'Analisi, il Controllo e l'Ottimizzazione dei Motori ad H2	Giovanni Ferrara, Università degli Studi di Firenze
14:40-15:00	All we Need is Hydrogen !	Stefano Fontanesi, Università gli Studi di Modena e Reggio Emilia
15:00-15:20	Sviluppo di biocarburanti di seconda generazione per il settore dei trasporti	Marco Antonelli, Università di Pisa
15:20-15:40	Experimental and 1D Modeling Activities: a Comprehensive Approach to the Study of Components of Propulsion Systems	Vittorio Usai, Università degli Studi di Genova
15:40-16:10	Sviluppo di una Nuova Generazione di Motori alimentati con "low & net zero carbon fuels"	Mirko Baratta, Federico Millo, Politecnico di Torino
16:10-16:30	Saluti di Chiusura	

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Giornata di Studio

Motori a Combustione Interna**Keynote Address from Industry Expert:****H2-ICE: a Sustainable Powertrain for Reaching NET-ZERO Carbon Emissions****Alberto Vassallo, DUMAREY AUTOMOTIVE ITALIA**

Alberto Vassallo is Manager, Advanced Engineering at Dumarey Automotive Italia SpA in Torino - formerly part of General Motors Global Propulsion Systems.

Alberto joined GM in 2005, and – during a 20-years-long career that included an International 3-years assignment in Detroit – has covered roles of increasing responsibility in the fields of Thermodynamics and Combustion. Starting in 2014, he has been promoted Technical Specialist for Diesel Combustion Systems and in 2020 for Combustion Systems overall (both SI

and CI).

Alberto holds a Master's Degree and a PhD in "Mechanical Engineering" from "Politecnico di Torino, Italy", and a post-doc Master in "Global Automotive and Manufacturing Engineering" from "The University of Michigan, Ann Arbor, USA".

He is co-author of more than 100 Technical papers and articles in the field of SI & CI combustion, fuels, emissions, efficiency and engine engineering in general. Alberto is also co-author of more than 40 patents issued in Europe, USA and China.

Keynote Address from Industry Expert:**Ways to Decarbonize the Heavy Duty Transport****Stefano Golini, FPT Industrial**

Dr. Stefano Golini has a Master degree and a PhD in Mechanical Engineering, both from University of Rome "La Sapienza". He joined the Fiat Group in 1998, in CRF, where he was immediately involved in the development of natural gas engines; and he has not stopped since, thus accumulating over 20 years of experience in the field.

In 2008 he moved to FPT Industrial, where he coordinated the development of EUV and EUVI versions of all FPT's NG engines.

In 2016 he transferred to the Innovation sector and is now responsible of EU-funded projects (Work Package Leader in GASTONE, HDGAS and LONGRUN projects) as well as scouting for innovative solutions to improve the efficiency of natural gas engines.

He is author or co-author of over twenty scientific papers.