

# Programma 79° Congresso ATI 2024

## 4 settembre

	<b>Aula San Salvatore (presso la Chiesa di San Salvatore, Piazza di Sarzano, 9)</b>
14:30-15:30	<b>Assemblea Generale ATI</b>
15:30-18:00	<b>Cerimonia Inaugurale</b>
15:30-16:00	<b>Saluti Istituzionali</b>
	Prof. Corrado Schenone, Presidente ATI Sezione Liguria - UniGE
	Dott. Marco Bucci, Sindaco della Città di Genova
	Prof. Federico Delfino Rettore dell'Università degli Studi di Genova
	Dott. Luigi Attanasio, Presidente Camera di Commercio di Genova
	Ing. Enrico Sterpi, Presidente dell'Ordine degli Ingegneri di Genova
	Prof. Livio De Santoli Presidente ATI Nazionale - Sapienza-Università di Roma
16:00-18:00	<b>Keynote Lectures</b>
	Ing. Dario Shariati, Sales Engineer, KSB Italia S.p.A, KSB Italia, Nuove soluzioni per efficientamento energetico e sostenibilità negli impianti di riscaldamento e condizionamento
	Ing. Amerigo Restucci, Direttore Tecnico e co-fondatore Tree Solutions srl Tree Solutions, Utilizzo delle tecnologie di controllo per la gestione ottimizzata degli impianti termici per la climatizzazione ambientale e ACS. Logiche avanzate, nuovi sviluppi tecnologici e digitalizzazione
	Ing. Fabrizio Tavaroli, Rina Consulting, Efficienza Energetica negli Stadi di Calcio
	Ing. Paolo Bonello, Direttore Commerciale, Iren Smart Solutions SpA, Energie rinnovabili ed efficienza energetica: presente e futuro nel percorso tracciato dalle direttive europee
	Ing. Riccardo Necrisi, Director of Research Development, Duferco Engineering S.P.A. l'idrogeno nella transizione energetica industriale
	Chiusura

# 5 settembre

dalle 08:30											
Registrazione - al Registration desk di fronte all'aula 4D											
Aula Benvenuto		Aula 5H			Aula 4B			Aula 4C		Aula 4D	
9:15-11:00		NEST ROOM: Scenarios for Hydrogen Adoption Chairs: Pietro De Palma, Massimo Rivarolo			TurboMachine Design Chairs: Giacomo Persico, Lorenzo Ferrari			Climate Change for the Built Environment Chair: Paolo Tartarini		Innovation in Heat Transfer Problems Chair: Sergio Nardini	
9:15-9:30					The use of Approximate Entropy analysis for flow pattern identification in radial compressors to detect instable operating conditions			Emiliano Valenti			
9:30-9:45		NEST Spoke 4: Clean hydrogen and final uses			Loredana Magistri			The Effect of Entropy Waves Features on the Indirect Noise Generation within an Aeronautical HPT stage		Ing. Giovanni Giannini	
9:45-10:00		Techno-economic assessment of Green Hydrogen production for blending in the natural gas network			Mattia Calabrese			Exploiting Deep Learning for the Optimization of Transonic Centrifugal Impellers		Alessandro Pela	
10:00-10:15		Impact of hydrogen blending on a real-world gas distribution network with a non-uniform elevation profile			Michele Francesconi			An Automated Geometric Analysis and Characterization of an Oil-Lubricated Twin-Screw Compressor for Predictive Modeling		Giuseppe Zeppa	
10:15-10:30		Hydrogen and Natural Gas in Pipeline Networks: A Comparative Energy Analysis			Carmine Cava			Fast CFD methodology for accurate prediction of wind turbine airfoil polars by means of Generalized k-omega turbulence model		Stefano Mauro	
10:30-10:45		Performance Evaluation Of Hydrogen-Powered Internal Combustion Engine City Bus For The Urban Mobility Of Bologna, Italy			Ing. Pier Paolo Brancaloni			Experimental characterization of a variable-pitch Wells turbine		Fabio Licheri	
10:45-11:00		Feasibility Analysis of Green Hydrogen Production Systems for Decarbonized Heating Applications: A Dynamic Modelling Approach on Simulink			Alessandro Caravelli			Aerodynamic reverse engineering design using fuzzy logic		Lorenzo D'ambrosio (REM)	
11:00-11:30											
Coffee Break - Lunch Area di fronte Aula 4L											
11:30-13:00		NEST ROOM: Components for Hydrogen Production and Utilization Chairs: Vincenzo Mulone, Massimo Rivarolo			Hydrogen Fuelled Internal Combustion Engine Chairs: Silvia Marelli, Vittorio Usai			Renewables Energy Source harnessing systems Chairs: Giorgio Pavesi		Measurement and Monitoring Chairs: Paolo Silvestri	
11:30-11:45		Enhancing PEM Electrolyzer Performance through Electrochemical Impedance Spectroscopy: A Review			Gabriele Discepoli			Chemical kinetics calculation of H2 Laminar Flame Speed: assessment of the performance of public available mechanisms at engine relevant conditions		Antonio Denny Baudone	
11:45-12:00		An Electrochemical Impedance Spectroscopy (EIS) analysis of a reversible Solid Oxide Cell (rSOC) for its electrochemical characterisation			Francesca Mennilli			Impact of Ozone Addition to Gasoline Surrogates in a Spark Ignition Engine		Fabio Anaclerio	
12:00-12:15		Three-dimensional modelling of Alkaline Water Electrolyzers			Federico Croci			Improving late pilot injection strategy in dual-fuel diesel methane engines through supercharging and H2 addition		Antonio Paolo Carlucci	
12:15-12:30		Accuracy estimation of a CFD multiphysics approach to study a mixed parallel and serpentine flow channels PEM fuel cell			Emanuele D'Alessio			Definition and Validation of a Zero-Dimensional IC Engine Model for Assessing the Performance of Different Methane-Hydrogen Mixtures		Giulio Cazzoli	
12:30-12:45		A Novel Hydrogen-Nitrogen Heat Exchanger For Aeronautical Applications			Vincenzo Di Domenico			Virtual development of a multi-cylinder hydrogen spark ignition engine operating at lean burn conditions		Emanuele Ugliano	
12:45-13:00		Hydrogen as a direct heat exchange fluid in room temperature hydride systems: Numerical study on the desorption process			Ferdinando Vincenti			Numerical Analysis of Hydrogen combustion in an SI internal combustion engine		Prof. Michele Battistoni	
13:00-14:30											
Lunch - Lunch Area di fronte Aula 4L											
14:30-16:00		Renewable Energy Production and Storage Chair: Sara Rainieri			Refrigeration and Heat Pumps Chair: Ciro Aprea			Energy Efficiency in Buildings Chair: Alessandro Franco		Efficient energy use and conversion in systems and processes Chair: Umberto Berardi	
14:30-14:45		Renewable hydrogen production from biomass using gasification activated carbon			Stefano Piazzi			State of the art and working fluids for high temperature heat pumps		Francesco Di Salvatore	
14:45-15:00		Biomass combined heat and power for renewable power provision in mountain environments: techno-economic assessment of cost factors and competitiveness under current and projected energy market conditions			Lorenzo Menin			Effect of combined refrigerant leakage and HEX fouling on performances on an air-to-air EHP in different Italian Climates		Luca Viscito	
15:00-15:15		Investigation on a thermal energy storage system to maximize the use of vessels' waste heat in port and during hoteling operations			Dr. Vincenza Brancato			Optimization of reversible heat pumps utilizing waste heat from electric power plants		Andriy Vasylyev	
15:15-15:30		Upcycling of Plastic Waste Into Valuable Products through Microwave Assisted Co-pyrolysis with Biochar from Residual Biomass			Tayyaba Gull			Solar-Powered Refrigeration for Sustainable Refrigerated Transport		Fabio Petruziello	
15:30-15:45		NextGen Infrastructures: Enhancing Cyber-Physical Resilience/Sustainability by Virtual Energy Storage			Ali Aghazadeh Ardebili						
15:45-16:00								Energy Efficiency of the Office Buildings in Italy: Insights for the European Taxonomy		Andrea Aquino (REM)	
16:00-16:30								Indoor Thermal Comfort Impact of Windcatcher Ventilation in Tropical Climates: A Case Study in Panama via Fluid Dynamics Simulation		Ana Bernal (REM)	
16:00-16:30											
Coffee Break - Lunch Area di fronte Aula 4L											
16:30-18:15		NEST ROOM: Hydrogen in Transportation Systems Chair: Massimo Rivarolo			Thermal Energy Storage Chairs: Enza Brancato, Stefano Barberis						
16:30-16:45		Techno-economic analysis of diesel, natural gas, electric and hydrogen buses			Enrico Bocci			Thermally-integrated CO2 cycles for MW-scale power generation and storage		Alberto Traverso	
16:45-17:00		A MATLAB/Simulink model of a parallel hybrid PEMFC/battery powertrain for passenger cars			Davide Parmiggiani			Thermally integrated innovative Carnot batteries to upgrade and dispatch low temperature sensible waste heat		Ettore Morosini	
17:00-17:15		Optimizing Hybrid Electric Microcar Design: A Simulation-Based Approach to Fuel-Cell Powertrains Analysis			Edoardo Cennamo			High efficiency waste heat recovery systems integrated with thermal energy storage for sustainable Data Centres.		Alessandro Sechi	
17:15-17:30		Feasibility study and optimal sizing of H2 storage and PEM fuel cells onboard ships			Massimo Rivarolo			Comparative analysis of a Packed-Bed Thermal Energy Storage operating with pure gases and nanoaerosol		Mario Petrollese	
17:30-17:45		Alternative Propulsion Systems And Low/Zero Carbon Fuels For Different Marine Vessels			Davide Lanni			0D physical model for the charging phase of shell-and-tube Latent Heat Thermal Storage		Vito Ceglie	
17:45-18:00								Feasibility study and sizing of TES coupled with Metal Hydrides storage for H2 fuelled ships		Stefano Barberis	
18:00-18:15								NEST Spoke 5: Energy conversion: the use of Advanced Fluids		Antonio Giuffrida	

dalle 20:00 **Cena Sociale (Presso Palazzo della Meridiana Salita San Francesco 6)**

# 6 settembre

dalle 8:30											
Registrazione - al Registration desk di fronte all'aula 4D											
Aula Benvenuto		Aula 5H			Aula 4B		Aula 4C		Aula 4D		
		Advanced Cycle Analysis Chairs: Angelo Algieri, Alessandro Sorce			Internal Combustion Engine Integration Chair: Silvia Marelli		Technologies and final Uses of Biomass Chairs: Lorenzo Menin, Daria Bellotti		Layouts and Strategies for Optimal Energy Management Chairs: Mario Luigi Ferrari		
9:15-11:00		Exergy Analysis of Gas Turbine Open Cycle with Pressure Gain Combustion Based on Humphrey Cycle			Alessandro Sorce	Analysis of the Heat Content of Exhaust Gases from a Heavy-Duty Diesel Engine under Real-world Driving Conditions and Cold Start Operation	Paolo Cutuli	The biomethane potential for public transport decarbonization in Italian cities	Nooussan Michel	Towards the target of the Renewable Energy Directive (RED) III using photovoltaic and batteries: The case study of Italy	Filippo Onori
9:15-9:30		A Thermodynamic Study of Pressure Gain Combustion in Combined Cycles			Antonio Giuffrida	Model based design of a turbo-compound bottomed to internal combustion engine exhaust gas	Federico Di Prospero	Evaluation of hydrogen integration in pyrolytic conversion of residual biomass to drop-in biofuel	Pietro Mele	Energy storage scenarios and design of a new Italian innovation infrastructure for energy transition	Antonio Conversano
9:30-9:45		Energetic and exergetic analysis of an AE-T100 micro gas turbine system fuelled by partially cracked ammonia			Chiara Monacchini	Unsteady phenomena in the exhaust circuit of turbocharged automotive engines	Federico Onnis	Numerical and experimental investigation on the performance of a biodiesel ICE-ORC integrated system	Luigi Falbo	Piecewise-linear MILP optimization for energy systems design onboard ships	Andriy Vasylyev
9:45-10:00		Model-based improvement of a trans-critical CO2 refrigeration plant			Fabio Fatigati	Experimental and numerical analysis of a waste-gated turbine for automotive turbocharged engine	Vittorio Usai	Fluidized Bed Reactors for energy recovery from biomass and wastes: a data-driven approach towards the development of digital twins for real time control and monitoring	Matteo Baldelli	Comparison between cold and hot network in a solar district cooling system	Elisa Ghirardi
10:00-10:15		Evaluating Brayton Heat Pump Potential for Industrial Decarbonisation			Guido Francesco Frate	Experimental analysis of the performance of a turbocharger compressor under pulsating flow condition	Federico Nannetti	Detailed modelling of a double fluidised bed steam gasifier processing woody biomass and solid recovered fuel mixtures	Oriando Palone	Integration of Floating Photovoltaics and Pumped Hydro Energy Storage with Water Electrolysis for Combined Power and Hydrogen Generation	Luca Migliari
10:15-10:30		Gasification of agricultural residues to support the decarbonization of the transport sector via electricity generation: a case study			Prof. Simone Pedrazi	Model based design and optimization of a shaft cooling for automotive electric motor	Ali Deriszadeh	Biochar: a carbon negative solution for a sustainable agriculture	Carolina Fabbri	Energy Management System for a Smart Grid Including Atmospheric Water Generation	Mario Luigi Ferrari
10:30-10:45		Dynamic Adsorptive Carbon Capture in Power-to-Gas Plants			Andrea Barbaresi	Quantifying Lithium-ion Battery Pack Thermal Behavior Based on a Metric-Driven Approach	Hossein Darvish	Pretreatment container a delocalized way to create valuable pellet from a multitude of agriwastes	Roberto Mussi	Investigating the Impact of Varied C-Rates on Lithium-Ion Batteries: A 3D Simulation Study	Elif Kaya
10:45-11:00		Coffee Break - Lunch Area di fronte Aula 4L									
11:00-11:30		Hydrogen Storage Systems Chair: Paola Rizzi, Stefano Barberis			Combustion Experimental and numerical Investigation Chairs: Davide Laera		Energy Transition Scenarios Chairs: Massimo Rivarolo		Hydraulics, pneumatics and drive systems Chairs: Paolo Tamburrano, Andrea De Pascale		
11:30-13:00		Identification of synthetic parameters for the thermal characterization of Phase Change Materials in MH-PCM hydrogen storage systems			Vesselin Krassimirov Krastev	Estimating the minimum ignition energy of spark-ignited fuel/air mixtures: preliminary steps towards a novel modelling approach	Marco Pretto	Evaluation of water/energy intensity of green hydrogen production plants in Africa scenario	Massimo Rivarolo	Innovative and self-adaptive energy recovery system in hydraulic cylinders for cyclic operations	Luca Romagnuolo
11:30-11:45		Performance Analysis of a Power-to-Gas Storage System based on r-SOC			Tania Santangelo	Numerical investigation of turbulent fuel jet diffusion and its influence on the auto-igniting diffusive flame development	Alessandro Lamberti	Energy transition pathways towards carbon neutrality: the 2035 Apulia case	Lazzaro Zagaria	Advancing Energy Efficiency in Automotive Production: A Model-Based Optimization of Pneumatic Blowing Processes for Metal Sheet Separation	Elvira Rakova
11:45-12:00		Solid-state Hydrogen storage: influence of storage capacity in physisorption.			Costantino Barbieri	CFD simulation of the increased electric boost effects on the glass melting process in a real glass furnace to support decarbonisation of glass industry	Davide Marsano	Energy flexibility potential associated with thermal uses in prototypes of Italian single-family buildings.	Paolo Zangheri	Lumped Parameter Modelling of Common Rail High-Pressure Fuel Injection Pump	Fulvio Palmieri
12:00-12:15		Retrofitting of a hybrid propulsion shunting locomotive equipped with Fuel Cell and Metal hydrides storage			Stefano Barberis	Analysis of limitations of tomographic BOS measurements in a lean H2-air premixed flame	Francesca Iapaolo	Energy and Economic Evaluation of a Mixed-Use Renewable Energy Community	Umberto Berardi	Investigation of Cavitation Phenomena in a "High-Power" Piezohydraulic Pump: A Computational Fluid Dynamics (CFD) Approach	Francesco Sciatti
12:15-12:30		Design of metal hydrides in a circular economy perspective.			Paola Rizzi	Experimental characterization of the acoustic response of cavity-backed perforated plates to control thermo-acoustic instabilities in gas turbines	Vito Ceglie	The production of biogenic carbon and green hydrogen through biomethane pyrolysis: the environmental benefits for the metallurgy sector	Viviana Negro	Enhancing tribological performance of External Gear Pumps through CFD Analysis of Textured Surfaces and gear Edge Chamfering	Masoud HATAMI GAROUSI
12:30-12:45		Lunch - Lunch Area di fronte Aula 4L									
12:45-13:00		Lunch - Lunch Area di fronte Aula 4L									
13:00-14:30		Lunch - Lunch Area di fronte Aula 4L									

## POSTER

P_FT1	Experimental on-site measurement of thermal conductance by means of heat flow meter applied to nanocomposite thermal insulating mortar coating	Stefano Bergero, Alessandro Cavalletti, Anna Chiari, Chiara Marafioti	Energy efficiency in buildings
P_FT2	Energy balance in innovative biopolymers production for sustainable 3D printing using lignocellulosic feedstocks	Gianluca Cavalaglio, Mattia Gelosia	Efficient energy use and conversion in systems and processes
P_FT3	Dynamic Simulation and Model Validation of University of Genova "SEB" Photovoltaic Plant in EnergyPlus environment	Federico Silenzi, Antonella Priarone, Marco Fossa, Samuele Memme, Mansueto Rossi	Smart Energy Systems, Smart Grid and distributed power production
P_FT4	Integration of hydrogen for decarbonisation: the possible contribution in "Hard-to-Abate" Sectors	Alessandro Franco, Caterina Giovannini	Hydrogen production, transport, storage and utilization
P_FT5	Transient investigation of a residential building air conditioning system with heat pump and PV/T modules	Bernardo Buonomo, Sergio Nardini, Oronzio Manca, Giulio Palmieri, Renato Elpidio Piomitallo	Clean, sustainable and renewable energy production and storage systems
P_FT6	Preliminary characterization of nano-silica gels for industrial applications in chilled showcases	Francesca Merli, Cinzia Buratti, Francesco Fraioli, Mehrangiz Mastoori	Energy efficiency in buildings
P_FT7	Temperature monitoring strategy for microclimate prediction in low-automation greenhouses: a preliminary analysis	Lorenzo Miserocchi, Gianluca Caposciutti, Alessandro Franco, Bernardo Tellini	Measurement and monitoring in energy systems
P_FT8	Steady-state model of Vapour Compression Systems for Refrigeration Applications	Giovanni Roberti, Marco Lorenzini, Michael Giovannini, Luca Molinaroli	Refrigeration and heat pumps
P_FT9	Surface Roughness Effects on Heat Transfer in Additive Manufactured Microchannels: A CFD Study	Tamara Gammaidoni	Innovation in heat transfer problems
P_FT10	Numerical analysis of the aspect ratio effect on mixed convection in vertical channels asymmetrically heated with nanofluids with assisting and opposing moving plate	Bernardo Buonomo, Oronzio Manca, Sergio Nardini, Gianluca Sarli	Innovation in heat transfer problems
P_FT11	Energy recovery from municipal waste using machine learning algorithm to produce biogas	Ali Mojtabeh, Livio De Santoli	Clean, sustainable and renewable energy production and storage systems
P_FT12	Energy renovation of monumental building: a smart approach through the energy community rationale	Giacomo Bizzarri, Enrica Boldrin, Laura Ferrari	Energy efficiency in buildings
P_FT13	Impact of Hydrogen Blending Policies on the Energy Efficiency, Environmental and Economics parameters of Residential Gas Boilers	Domiziana Vespasiano, Alessandro Ciancio, Flavia Vespasiano, Axel Riccardo Massulli, Livio De Santoli	Hydrogen production, transport, storage and utilization
P_FT14	An Overview of Natural Circulation Loops: Mini-Circuits and Complex Configurations	Johan Augusto Bocanegra Cifuentes, Mario Misale, Annalisa Marchitto	
P_FT15	Green Hydrogen: Transforming the Port of Genoa into a Sustainable Maritime Hub	Johan Augusto Bocanegra Cifuentes, Corrado Schenone, Emanuela Pallavidino, Juliana Peshku	
P_FT16	Renewable Energy Communities in Developing Countries: a project in its early stages	Fabio Bozzoli, Pamela Vocale, Surafel Kifle Teklemariam, Rachele Schiasselloni	
P_FT17	Energy and exergy analysis of an active Natural Gas Pressure Regulating Station	Francesco Devia, Corrado Schenone, Davide Borelli	
P_MS1	A steady-state numerical approach for the thermo-structural analysis of a cryogenic piston pump	Stefano Cioni, Francesco Balduzzi, Luca Romani, Luca Sambri, Luca Marianetti, Giovanni Ferrara	Hydrogen production, transport, storage and utilization
P_MS2	Towards the target of the Renewable Energy Directive (RED) III using photovoltaic and batteries: The case study of Italy	Filippo Onori, Tommaso Milletti, Mosè Rossi, Gabriele Comodi	Clean, sustainable and renewable energy production and storage systems

P_MS3	An Electrochemical Impedance Spectroscopy (EIS) analysis of a reversible Solid Oxide Cell (rSOC) for its electrochemical characterisation	Francesca Mennilli, Lorenzo Giannetti, Andrea Monforti Ferrario, Mosé Rossi, Gabriele Comodi, Massimiliano Della Pietra	Hydrogen production, transport, storage and utilization
P_MS4	An Overview about FPT Industrial Telematic Service for Monitoring and Diagnostic purposes. First approaches to Signal Logger Data from Heavy-Duty Commercial Vehicles	Valerio D'Agostino, Massimo Cardone, Gianmarco Verdone	Measurement and monitoring in energy systems
P_MS5	Estimating the minimum ignition energy of spark-ignited fuel/air mixtures: preliminary steps towards a novel modelling approach	Marco Pretto, Enrico De Betta, Pietro Giannattasio	Internal combustion engines and sustainable mobility
P_MS6	Design of a Reverse Osmosis Desalination Plant Powered by Renewables for a Small Mediterranean Island	Riccardo Travaglini, Francesco Superchi, Alessandro Bianchini	Efficient energy use and conversion in systems and processes
P_MS7	Enhancing the prediction of electric load demand: a comparative analysis of ARIMA and ANN models for the case of a small touristic island	Claudio Galli, Francesco Superchi, Alessandro Bianchini	Smart Energy Systems, Smart Grid and distributed power production
P_MS8	An insight on the calculation of aerodynamic polars for stall-controlled wind turbines using CFD: the case of SBXX airfoils	Alessio Venturi, Pier Francesco Melani, Francesco Paggi, Alessandro Bianchini	Clean, sustainable and renewable energy production and storage systems
P_MS9	Hourly carbon intensity of natural gas combined cycles compared to the current and future electricity mixes in Italy	Gabriele Fambri, Michel Noussan, Badami Marco, David Chiaramonti	Efficient energy use and conversion in systems and processes
P_MS10	Model based design of a turbo-compound bottomed to internal combustion engine exhaust gas	Federico Di Prospero, Davide Di Battista, Roberto Cipollone	Internal combustion engines and sustainable mobility
P_MS11	Two-phase flow pattern recognition inside tubes by a novel diagnostic technique	Amedeo Amoresano, Martina Barrasso, Giuseppe Langella, Giuseppe Quaremba, Miriana Dedes, Paolo Iodice	Measurement and monitoring in energy systems
P_MS12	Enhanced energy efficiency technologies in healthcare buildings: a case study of waste heat recovery from an optimized battery-integrated cogeneration system	Alfredo Gimelli, Raffaele Iossa, Ali Karimi	Efficient energy use and conversion in systems and processes
P_MS13	Virtual development of a multi-cylinder hydrogen spark ignition engine operating at lean burn conditions	Emanuele Ugliano, Fabio Bozza, Luigi Teodosio	Internal combustion engines and sustainable mobility
P_MS14	Control-Oriented Modelling of a HEV with Dual-Clutch Transmission for Torque Split and Gear Shifting Optimization	Alfredo Gimelli, Francesco Tufano, Renato Brancati	Internal combustion engines and sustainable mobility
P_MS15	Numerical Analysis of Hydrogen combustion in an SI internal combustion engine	Jacopo Zombi, Tamara Gammaidoni, Federico Ricci, Carlo Grimaldi, Michele Battistoni	Hydrogen production, transport, storage and utilization
P_MS16	Investigating experimentally the performances of a natural gas reciprocating compressor adapted to pure hydrogen up to 30 MPa	Thomas Dalberto, Francesco Battistella, Théo Pérus, Marco Corsini, Antonino Raviola, Gianluca Valenti	Hydrogen production, transport, storage and utilization
P_MS17	Preliminary analysis of an integrated ICE-gasifier plant for power generation from plastic waste material	Niccolò Grilli, Marco Ciampolini, Lorenzo Bosi, Luca Romani, Giovanni Ferrara	Clean, sustainable and renewable energy production and storage systems

## POSTER CONCORRENTI al premio Premio AIMSEA per il miglior poster presentato al 79° Congresso Nazionale ATI

### Aula Benvenuto

P_AIMSEA 1	Testing and Simulation of Adsorption Technologies to Enhance Power-to-Gas Systems	Barbàresi Andrea	Parma
P_AIMSEA 2	Development of a power conversion system for a wave energy converter connected to electrical network	BARONE PIOFRANCESCO	Calabria
P_AIMSEA 3	Two phase flow pattern recognition inside tubes	Barrasso Martina	Napoli
P_AIMSEA 4	A data driven approach for enhanced on-board fault detection and identification	Stella Canè	Bologna
P_AIMSEA 5	Hybrid powertrain design and control	Cennamo Edoardo	Roma Tor Vergata
P_AIMSEA 6	An Overview about FPT Industrial Telematic Service for Monitoring and Diagnostic purposes. First approaches to Signal Logger Data from Heavy-Duty Commercial Vehicles	D'Agostino Valerio	Napoli
P_AIMSEA 7	Investigating experimentally the performances of a natural gas reciprocating compressor adapted to pure hydrogen up to 30 MPa	Dalberto Thomas	Milano
P_AIMSEA 8	Estimating the minimum ignition energy of spark-ignited fuel/air mixtures: preliminary steps towards a novel modelling approach	De Betta Enrico	Udine
P_AIMSEA 9	Model-based design of a turbo-compound bottomed to ICE	Di Prospero Federico	L'Aquila
P_AIMSEA 10	CFD ANALYSIS OF HYDROGEN COMBUSTION IN A TURBOFAN ENGINE	Ferrara Vincenzo	Napoli
P_AIMSEA 11	A thermodynamic model of RCM for the evaluation of the methane laminar flame speed at engine relevant pressure	Gambardella Alessia	Napoli
P_AIMSEA 12	Sviluppo di un modello python per la valutazione delle prestazioni di una turbina bifase	Gigliotti Federico	Firenze
P_AIMSEA 13	Experimental characterization of the isothermal flow field in a H2-air double swirl burner	Iapaolo Francesca	Milano
P_AIMSEA 14	A pyrolysis based spent coffee grounds biorefinery concept	Mele Pietro	Roma Tor Vergata
P_AIMSEA 15	Unsteady phenomena in the exhaust circuit of turbocharged automotive engines	Onnis Federico	Genova
P_AIMSEA 16	A new concept for liquefied hydrogen utilization onboard ships	Passalacqua Matteo	Genova
P_AIMSEA 17	A new concept of high temperature heat pump: the open reverse Brayton cycle for thermal recovery	Patti Alberto	Genova
P_AIMSEA 18	Dynamic modeling of a closed loop 2 phase compression system for heat pump application	Purushothaman Sreenath	Genova
P_AIMSEA 19	Predicted features of liquid hydrogen batch evaporation	Tucker Swatara	Genova
P_AIMSEA 20	Virtual development of a multi-cylinder hydrogen spark ignition engine operating at lean burn conditions	Ugliano Emanuele	Napoli
P_AIMSEA 21	Sustainable water production technologies for remote islands	Vasylyev Andriy	Genova