

SAE 2009

# Facing the Challenge of Future CO<sub>2</sub> Targets:

Impact on European Passenger Car  
Technologies Symposium

18-19 June 2009 • Politecnico di Torino • Turin, Italy

Pre-register by 29 May 2009

SAE Members save \$400 USD

Non Member save \$100 USD

## Program Highlights:

- Discover the latest technologies to achieve future CO<sub>2</sub> targets
- Networking Opportunities
- Tour of GM Powertrain Facility
- Tour of Politecnico di Torino Labs

[www.sae.org/co2challenge](http://www.sae.org/co2challenge)



SAE 2009

## Facing the Challenge of Future CO<sub>2</sub> Targets:

Impact on European Passenger Car Technologies Symposium

18-19 June 2009 • Politecnico di Torino • Turin, Italy

Attendees at the new SAE symposium will take an insightful look at new and developing technologies addressing future CO<sub>2</sub> targets. The event will combine state-of-the-art technology presentations with face-to-face networking opportunities for professionals focused on meeting the EU's proposed greenhouse gas targets of 120g CO<sub>2</sub>/km by 2012 and 95g CO<sub>2</sub>/km by 2020.

The two-track technical program is ideal for those assessing powertrain and vehicle technologies that address the EU's proposed greenhouse gas targets, including:

- Combustion and emissions
- Hybrid & electric powertrains
- Fuels
- Transmission
- Mass and friction reduction
- Aerodynamics
- Tires
- Other new and developing technologies.

As an attendee, you have the opportunity to learn about new and developing technologies, network with other professionals, and attend walking tours of the GM Powertrain facilities and the Politecnico labs.

### Symposium Organizers

**Federico Millo**, Associate Professor, Politecnico di Torino

**Giovanni Cipolla**, Diesel Advanced Engineering & Hybrids Director  
General Motors Powertrain Europe

**Mauro Velardocchia**, Associate Professor, Politecnico di Torino

**Antonello Cogotti**, SAE Fellow

**Marzio Bianchi**, SAE Turin Group Secretary

### *Special Offer for Powertrains, Fuels & Lubricants Meeting Attendees!*

Attend the 2009 International Powertrains, Fuels & Lubricants Meeting and receive a **\$100 USD discount** on your registration for the SAE 2009 Facing the Challenge of Future CO<sub>2</sub> Targets: Impact on European Passenger Car Technologies Symposium.

[www.sae.org/co2challenge](http://www.sae.org/co2challenge) - register by 29 May 2009 to save!

# Registration, Hotel & Travel Information

## Registration Information

	By 29 May	After 29 May
SAE Member	\$895 USD	\$995 USD
Non-Member*	\$1195 USD	\$1295 USD
Participant (includes Speakers, Organizers)	FREE	FREE
Student (must provide valid ID)	\$495 USD	\$595 USD

## Registration includes

technical and keynote sessions, access to electronic copies of the presentations after the event, exhibits, AM/PM networking breaks, lunches and walking tours.

## Registration Hours

Thursday, 18 June  
08:00 – 15:30  
Friday, 19 June  
08:00 – 15:30

\* Includes one year of SAE membership.

### Conditions of Sale:

Registrations received after **29 May 2009** will automatically be charged the on-site price. NO CHILDREN UNDER THE AGE OF 16 PERMITTED. All cancellations must be received by SAE prior to **29 May 2009**. A \$50 USD processing fee will be assessed for each canceled registration that results in a refund. Refunds for special event/meal tickets will not be processed after **29 May 2009**. Refunds will not be issued if cancellation occurs on or after **29 May 2009**.

## Hotel Information

The symposium will be held at:

Aula Magna

Politecnico di Torino

c.so Duca degli Abruzzi, 24

10129 Torino- ITALY

Website: [www.polito.it/index.en.php](http://www.polito.it/index.en.php)

## Local Hotels:

The following hotels are within walking distance to the Politecnico di Torino. Please contact the hotel directly to make your reservations and request the Politecnico/SAE International rates.

### ART HOTEL BOSTON

Via Massena n. 70

10128 Torino

Phone: +39 011 500359

Fax: +39 011 599358

Web Site: [www.hotelbostontorino.it](http://www.hotelbostontorino.it)

E-Mail: [prenotazioni@hotelbostontorino.it](mailto:prenotazioni@hotelbostontorino.it)

### TURIN PALACE HOTEL

Via Sacchi, 8 - 10128 Torino - Italia Torino

Phone: +39 011 5625511

Fax +39 011 5612187

Web Site: [www.turinpalace.thi.it](http://www.turinpalace.thi.it)

E-Mail: [palace@thi.it](mailto:palace@thi.it)

### BEST WESTERN HOTEL LUXOR

Corso stati Uniti, 7

Phone: +39 011 5620777

Fax: +39 011 5628324

Web Site: [www.hotelluxor.it](http://www.hotelluxor.it)

E-Mail: [info@hoteluxor.it](mailto:info@hoteluxor.it)

# Preliminary Agenda

As of 8 April 2009. Visit [www.sae.org/co2challenge](http://www.sae.org/co2challenge) for updated information.

Thursday, 18 June 2009	
08:00 – 09:00	<b>Registration</b>
09:00 – 09:30	<b>Welcome Address</b> <b>F. Profumo</b> , Rector, Politecnico Torino; <b>A. Barberis</b> , Honorary President of SAE Torino Group, Turin Chamber of Commerce; <b>T. Ryan</b> , 2008 SAE President and Institute Engineer, Southwest Research Institute
	<b>Plenary Session</b> <i>Chairman R. Rinolfi, Fiat Powertrain Technologies</i>
09:30 – 09:50	<b>The EU Commission Perspective</b> <i>G. Mattino, EC- DG Enterprise &amp; Industry</i>
09:50 – 10:10	<b>Are Driving Cycles Representative of Real-World Conditions?</b> <i>T. Woll, Daimler</i>
10:10 – 10:40	<b>Networking Break</b>
10:40 – 11:00	<b>Infomobility Programs: Can Information Technology Help in Reducing CO<sub>2</sub> Emissions in Real-World Traffic?</b> <i>M. Mauro, Centro Ricerche Fiat</i>
11:00 – 11:20	<b>Strategies for the Worldwide Race to CO<sub>2</sub> Reduction</b> <i>A. Greaney, Ricardo</i>
11:20 – 12:00	<b>Discussion: Facing the Challenge of Future CO<sub>2</sub> Targets</b> <i>Led by R. Rinolfi, Plenary Session Chair</i>
12:00 – 14:00	<b>Lunch</b>
	<b>Advanced Powertrains Session</b> <i>Chairman: M. Bargende</i> <i>IVKI FKFS-Universität Stuttgart</i>
	<b>Aerodynamics and its Contribution to CO<sub>2</sub> Reduction Session</b> <i>Chairman: A. Cogotti, SAE Fellow</i>
14:00 – 14:20	<b>Powertrain Technologies for CO<sub>2</sub> Reduction</b> <i>R. Rinolfi, Fiat Powertrain Technologies</i>
14:00 – 14:20	<b>The Contribution of Cooling Air Flow to Fuel Consumption of Passengers Cars</b> <i>T. Kuthada, IVKI FKFS-Universität Stuttgart</i>
14:20 – 14:40	<b>Diesel Engines Right-sizing for Optimal NO<sub>x</sub> and CO<sub>2</sub> Emissions</b> <i>G. Boretto, GM Powertrain Europe</i>
14:20 – 14:40	<b>Ferrari Aerodynamic Approach to Environmental Issues: How Ferrari is Facing the Challenges Arising from Environmental Issues for its Future Road Cars</b> <i>F. Cannizzo, Ferrari – Italy</i>
14:40 – 15:00	<b>An Approach to Compare Advanced Powertrains and to Rate Customer's Benefit for Small Vehicles</b> <i>M. Horn, FKFS</i>
14:40 – 15:00	<b>Relationship Between Real World Fuel Consumption and Aerodynamic Improvements</b> <i>A. Broniewicz, Volvo Car Corporation</i>
15:00 – 15:20	<b>Potentials of Downsizing and Friction Reduction for Future CO<sub>2</sub> Scenarios</b> <i>H. Busch, FEV</i>
15:00 – 15:20	<b>Aerodynamics Development Strategies for Reduction of Vehicle CO<sub>2</sub> Emissions</b> <i>M. Islam, Audi AG</i>
15:20 – 15:40	<b>Multi-Air and High Efficiency Engines</b> <i>L. Bernard, Fiat Powertrain Technologies</i>
15:20 – 15:40	<b>A Numerical Method for the Aerodynamic Optimization of Road Vehicles and its Application in the Development of New Vehicles</b> <i>R. Tregnago, Centro Ricerche Fiat</i>
15:40 – 16:10	<b>Discussion on Advanced Powertrain Technologies Addressing Future CO<sub>2</sub> Target</b> <i>Led by M. Bargende, Session Chairman</i>
15:40 – 16:10	<b>Discussion on Aerodynamics Technologies Addressing Future CO<sub>2</sub> Targets</b> <i>Led by A. Cogotti, Session Chairman</i>
16:10 – 16:30	<b>Networking Break</b>
16:30 – 18:30	<b>Lab Tour:</b> GM Powertrain and Politecnico Labs — Please, no cameras or open-toed shoes.
Friday, 19 June 2009	
	<b>Hybrids &amp; Powertrain Electrification Session</b> <i>Chairman: G. Cipolla, GM Powertrain Europe</i>
	<b>Car &amp; Transmissions Concepts Session</b> <i>Chairman: J. Wiedemann, IVKI FKFS-Universität Stuttgart</i>
09:00 – 09:20	<b>Pathways for Reducing Vehicle CO<sub>2</sub> Emission Based on Hybrid and Plug-in Hybrid Propulsion Concepts</b> <i>Z. Filipi, University of Michigan</i>
09:00 – 09:20	<b>Vehicle Technologies for CO<sub>2</sub> Reduction</b> <i>L. Orofino, Fiat Auto</i>

09:20 – 09:40	<b>Nissan's Comprehensive CO<sub>2</sub> Reduction Approach with Several Propulsion Systems</b> <i>S. Yonetamari, Nissan Technical Center Europe</i>	<b>Weight Optimization in Car Body Engineering</b> <i>S. Rolando, Italdesign</i>
09:40 – 10:00	<b>General Motors Advanced Propulsion Strategy</b> <i>M. Cisternino, GM Powertrain Europe</i>	<b>The Phylla Project</b> <i>N. DiGiusto, Centro Ricerche Fiat</i>
10:00 – 10:20	<b>CO<sub>2</sub> Emissions Reduction: The Hybrid Challenge</b> <i>M. Forissier, Valeo</i>	<b>Pininfarina Bluecar: Concept and Design</b> <i>L. Vermeersch, Pininfarina</i>
10:20 – 10:40	<b>Networking Break</b>	
10:40 – 11:00	<b>Electrification of Powertrain a Solution for CO<sub>2</sub> Reduction: HEV, PHEV, EV, Energy Storage and Transformation</b> <i>P. Leteinturier, Infineon</i>	<b>Mechanical Improvement on Vehicle Friction</b> <i>D. Ducci, SKF</i>
11:00 – 11:20	<b>Status and Trends of Li-Ion Battery Technology for Automotive Applications</b> <i>Speaker TBD, SAFT / Johnson Controls</i>	<b>Analysis and Measurements of the Efficiency of a Wet DCT for High Performance Vehicles</b> <i>C. Torrelli, C. Cavallino, F. Viotto, Oerlikon-Graziano</i>
11:20 – 11:40	<b>Flywheel-Based Hybrid Systems</b> <i>J. Hilton, Flybrid Systems LLP – UK</i>	<b>Innovative Powershift AMT Concept</b> <i>M. Serrarens, Drive Train Innovation, F. Amisano, Magneti Marelli</i>
11:40 – 12:00	<b>Discussion on Powertrain Technologies Addressing Future CO<sub>2</sub> Targets</b> <i>Led by G. Cipolla, Session Chairman</i>	<b>Transmission and Drive Line Simulator for the CO<sub>2</sub> Challenge</b> <i>D. Gagne, LMS</i>
12:00 – 12:20		<b>Discussion on Vehicle Technologies Addressing Future CO<sub>2</sub> Targets</b> <i>Led by J. Wiedemann, Session Chairman</i>
12:20 – 14:00	<b>Lunch</b>	
	<b>Bio- and Alternative Fuels Session</b> <i>Chairman: F. Millo, Politecnico di Torino</i>	<b>Tires Session</b> <i>Chairman: M. Velardocchia, Politecnico di Torino</i>
14:00 – 14:20	<b>Concepts, Potentials and Challenges for SI-Engines with Hydrogen and Hydrogen-Enriched Gases</b> <i>H. Eichelseder, D. Leitner, C. Skalla, TU Graz</i>	<b>EC Regulatory Trends in Tires Development</b> <i>M. Spinetto, Pirelli</i>
14:20 – 14:40	<b>CNG Future Perspectives</b> <i>A. Gerini, Fiat Powertrain Technologies</i>	<b>Tire and Environmental Evolutionary Scenario</b> <i>D. Labò, Michelin</i>
14:40 – 15:00	<b>Simulative Optimization of a 3-Cylinder CNG Engine Within a Parallel Hybrid Powertrain</b> <i>D. Boland, M. Bargende, IVK University of Stuttgart, H.J. Berner, FKFS</i>	<b>Modelling for Tribology</b> <i>F. Cheli, Politecnico di Milano</i>
15:00 – 15:20	<b>Networking Break</b>	
15:20 – 15:40	<b>Oil-Free Zone in the Province of Trento (Italy): the Case of Primiero and Vanoy Community</b> <i>A. Fuganti, Centro Ricerche FIAT</i>	<b>Contribution from Tire Raw Material to Low Rolling Resistance</b> <i>C. Bastioli, Novamont</i>
15:40 – 16:00	<b>Well-to-Wheels CO<sub>2</sub> Reduction with Biofuels</b> <i>B.M. Vaglieco Istituto Motori C.N.R., Naples — Italy</i>	<b>Tire Development</b> <i>Speaker TBD, Pirelli</i>
16:00 – 16:20	<b>SI Engines Fueling with E85: Challenges and Opportunities with 2nd Generation Bio-Ethanol</b> <i>A. Vassallo, GM Powertrain Europe</i>	<b>Tire Development</b> <i>Speaker TBD, Michelin</i>
16:20 – 16:40	<b>Discussion on Bio- and Alternative Fuels Addressing Future CO<sub>2</sub> Targets</b> <i>Led by F. Millo, Session Chairman</i>	<b>Tire Pressure Monitoring System (TPMS)</b> <i>T. Hannon, TRW</i>
16:40 – 17:00		<b>Discussion on Tires Technologies Addressing Future CO<sub>2</sub> Targets</b> <i>Led by M. Velardocchia, Session Chairman</i>
	<b>Adjourn</b>	



# Marketing Solutions

## Exhibit Opportunities

**Tabletop Display:**..... **\$2,200 USD**

Includes:

- One tabletop display space – 6 ft. x 30 in. table with two chairs
- One complimentary symposium registration
- Recognition in the Event Guide

**Tabletop Display Plus Package:**..... **\$3,000 USD**

All benefits above, **PLUS:**

- One additional symposium registration

## Symposium Partner Opportunities

Collaborate with SAE to distinguish your company at this symposium. Choose one of the partner programs, an exclusive sponsorship or get creative with a customized package!

**All sponsorships include: Display of logo** on sponsor signage at the event; **Recognition** in the symposium Event Guide; **Recognition** on the sponsor page of the event website.

**GOLD PARTNER** ..... **\$7,500 USD**

*Limited to one (1) company*

Includes:

- One tabletop display space – 6 ft. x 30 in. table with two chairs
- Recognition as the EXCLUSIVE host of the Networking Reception (Thursday night)
- Opportunity to provide a gift to all reception attendees (at sponsor’s expense)
- Complimentary registration for three symposium participants

**SILVER PARTNER** ..... **\$5,000 USD**

*Limited to two (2) companies*

Includes:

- Recognition as exclusive host of one of the daily lunches
- Complimentary registration for two symposium participants
- Opportunity to provide a gift to all lunch attendees (at sponsor’s expense)

**BRONZE PARTNER** ..... **\$2,500 USD**

Includes:

- Recognition as exclusive host of one of the daily coffee breaks
- Complimentary registration for one symposium participant

## ADDITIONAL SPONSORSHIPS AVAILABLE

**Name Badge Lanyards** ..... **\$2,500 USD**

**Official Conference Pens and Notepads** ..... **\$1,500 USD each**

*Sponsor both for \$2,500 USD*

**Friends of the Industry** ..... **\$500 USD**

**Customized Sponsorships Available!**

**FOR MORE INFORMATION CONTACT:**

**Arlene DiSilvio**

Phone: 724-772-4060

Email: [disilvio@sae.org](mailto:disilvio@sae.org)

## Related Resources



### Diesel Exhaust Aftertreatment 2000-2007

By Magdi K. Khair and Federico Millo

As the restrictions grow tighter, exhaust aftertreatment technologies must become more efficient and reliable. The 55 SAE technical papers in this compilation will guide engineers in their efforts to meet these new regulations by summarizing the latest diesel exhaust aftertreatment technology for both light- and heavy-duty applications.

## Upcoming Training

### e-Seminars

#### Diesel Engine Technology

**SAE Members: \$895 USD;**

Non-members: \$995 USD

### e-Seminars

#### Fundamentals of Modern Vehicle Transmissions e-Seminar

**Members: \$1,095 USD;**

Non-members: \$1,195 USD

### Telephone/Webcast

#### The Future of Green Fuels: Pathways for Large-Scale Biofuels Commercialization

25 June 2009

11:30 – 13:30

## Upcoming Events:

### SAE 2009 Particle Emissions of 2-Stroke Scooters

11 – 12 June 2009

Milano, Italy

### SAE 2009 International Powertrains, Fuels & Lubricants Meeting

15 – 17 June 2009

Florence, Italy

Exhibit and/or sponsor at **this** event **PLUS** one of the two events listed above and receive a **15% discount!**

Exhibit and/or sponsor **this** event **PLUS** both of the events listed above and receive a **20% discount!**

## SAE Seminars Come to Italy!

### Introduction to Hybrid and Electric Vehicle Battery Systems Seminar

15 – 16 June 2009

Grand Hotel Mediterraneo, Florence, Italy

Instructor: Eric Spek

**SAE Members: \$995 USD;**

Non-Members: \$1,115 USD; 1.3 CEUs

This seminar will introduce participants to the concepts of hybrid vehicles, their missions and the role of batteries in fulfilling those requirements. Battery topics including limitations, trends in hybrid development, customer wants and needs, battery system development timelines, comparison of electrochemistries and safety will be examined.

*When registering, refer to I.D. #C0626 (requires separate registration)*

### NEW! Improving Fuel Efficiency with Engine Oils Seminar

16 – 17 June 2009

Grand Hotel Mediterraneo, Florence, Italy

Instructor: Ewa Bardasz

**SAE Members: \$995 USD;**

Non-Members: \$1,115 USD; 1.3 CEUs

This seminar will highlight the role of lubricants in improving fuel efficiency and provide strategies for selecting the best oil for a given application.

*When registering, refer to I.D. #C0914 (requires separate registration)*

Attendees to the SAE 2009 International Powertrains, Fuels & Lubricants Meeting receive \$100 USD off the fee to one or both of these seminars.

## For additional information contact:

**SAE Customer Service at +1.724.776.4970 or email [CustomerService@sae.org](mailto:CustomerService@sae.org).**

SAE 2009

# Facing the Challenge of Future CO<sub>2</sub> Targets:

Impact on European Passenger Car  
Technologies Symposium

**18-19 June 2009 • Politecnico di Torino • Turin, Italy**

Pre-register by 29 May 2009

**SAE Members save \$400 USD**

**Non Member save \$100 USD**

[www.sae.org/co2challenge](http://www.sae.org/co2challenge)

P90503

**SAE** International™

400 Commonwealth Drive  
Warrendale, PA 15096-0001

Non-Profit Org.  
U.S. POSTAGE  
**PAID**  
Pittsburgh, Pa.  
Permit No. 1731