

# Les Rencontres Scientifiques de l'IFP

IFP, Rueil-Malmaison, France | 25 - 26 November 2008

## International Conference on Advances in Hybrid Powertrains



Second  
Announcement  
and Registration Form



Co-organized with



## What is TNO?

TNO is the largest research organisation in the Netherlands, employing 5000 professionals, and is active in many fields of science and technology. TNO is fully independent and delivers its research and consultancy services to a multitude of customers from industry, government and national and international non-governmental organisations.

In the automotive market TNO helps its clients with the development and application of sustainable and economically viable, new advanced technologies in the area of powertrains, vehicle intelligence and safety.

Fields of expertise include hybrid powertrains, diesel emission control, future fuels and integrated safety.

Through active cooperation with customers, other European research institutions and universities for research and education, TNO provides a valuable contribution to the continued competitiveness of the European automotive sector, now and into the future.

For more information,  
<http://www.tno.nl>

## What is IFP?

As an international research and training center, IFP is developing the transport energies of the 21<sup>st</sup> century. It provides public players and industry with innovative solutions for a smooth transition to the energies and materials of tomorrow – more efficient, more economical, cleaner and sustainable.

To fulfill its mission, IFP has five complementary strategic priorities:

- capturing and storing CO<sub>2</sub> to combat the greenhouse effect,
- diversifying fuel sources,
- developing clean, fuel-efficient vehicles,
- converting as much raw material as possible into transport energy,
- pushing back the boundaries in oil and gas exploration and production.

An integral part of IFP, its graduate engineering school prepares future generations to take up these challenges.

For more information, <http://www.ifp.com>

# Context and Objectives

Today, hybrid powertrains are expected to have a substantial impact on road travel. The main motivation behind the development of hybrid technology is the possibility of combining the advantages of purely electric vehicles – in particular zero local emissions – with the advantages of engine-based vehicles, namely high energy and power density. In addition, hybrid powertrains offer a variety of options for improving fuel economy in comparison with engine-based powertrains. How effectively this potential can be exploited depends on how well a number of components perform, and how effectively they are integrated and managed on a system level.

Hybrid powertrains technology still has a long way to go before it reaches maturity. New classes of components, particularly well suited to hybrid applications, are increasingly being studied, prototyped or released. There is a particular focus on systems designed to effectively store energy on board and recuperate energy from both the vehicle and the engine. In addition, the functional integration of these unconventional components into new, specially adapted types of engines is being investigated, along with their operative integration by the vehicle's supervisory control system.

Consequently, hybrid powertrains are still a subject of in-depth research, both industrial and academic.

This international conference is therefore designed to be a scientific and technical event gathering together players from the worlds of academic research, applied research and industry and focusing on the medium-term development of hybrid powertrains for passenger cars, commercial vehicles, buses, and delivery trucks.

The conference is being jointly organized by IFP and TNO. Through the event, the two organizations intend to firmly assert the strategic interest of this key scientific and technical challenge to the European research community.

## The main topics addressed by the conference will be:

- optimization of thermal engines for hybrid applications,
- system-level supervisory control and optimization,
- specific transmissions for hybrid applications,
- on-board energy storage systems,
- optimized electric motors,
- dedicated power electronics,
- heat recovery for next generation of hybrid vehicles,
- modelling and support tools for the design of hybrids,

from a scientific and technical viewpoint.

# General Information

*This international conference will be held at IFP in Rueil-Malmaison, (near Paris), France Tuesday 25 and Wednesday 26 November 2008.*

## Conference organization

**Frédérique Léandri**

IFP, Rueil-Malmaison, France

Communications Division

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## Administrative secretariat

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17 rue de Seine

92100 Boulogne, France

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For more information on this international conference and other events organized by IFP:

<http://events.ifp.com>

## Scientific correspondents

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## Scientific committee

**Dr. François Badin**

(IFP, France)

**Prof. Rik Baert**

(TNO, The Netherlands)

**Darren Foster BE. (Mech)**

(TNO, The Netherlands)

**Dr. Xavier Montagne**

(IFP, France)

**Prof. Pierre Rouchon**

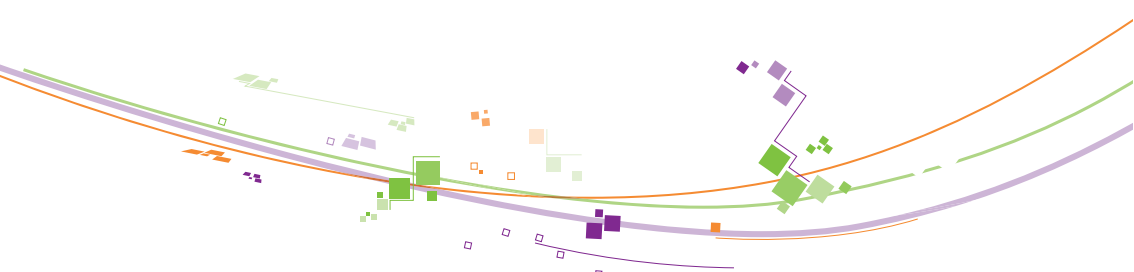
(Ecole des Mines de Paris, France)

**Dr. Antonio Sciarretta**

(IFP, France)

**Prof. Jean-Marie Tarascon**

(Univ. de Picardie Jules Verne, France)



# Information about the program

## Scientific sessions

The sessions will be introduced by a keynote address and illustrated by oral presentations and posters.

Posters are an integral part of the conference.

The program will consist in 4 sessions

- On-board Energy Storage Systems (ESS)
- Optimized energy management
- Modelling and support tools for an optimal design
- System architectures and specific components

## Oral presentations

- 40 minutes allotted for keynote speakers, including 5 minutes discussion
- 25 minutes for the other speakers, including 5 minutes discussion

## Poster presentations

Posters will be displayed simultaneously during the whole conference. You should set up your poster on Tuesday 25 November between 8.30 and 9.15 am, before the beginning of the conference.

## Conference proceedings

After their review and final acceptance by the conference scientific committee, the full papers will be published in a special issue given out on site to all registered participants.

All symposium contributors (oral and poster) will be invited to submit their paper for publishing after the conference in a special issue of Oil & Gas Science and Technology – Revue de l'IFP.

Each registered participant will receive one volume. For all additional orders, please contact Editions Technip, 27 rue Ginoux, 75015 Paris, France.

Tel.: +33 (0)1 45 78 33 80, fax: +33 (0)1 45 75 37 11  
web site: <http://www.editionstechnip.com>

## Official language

English will be the official language. Simultaneous interpretation will not be provided.

## Demonstrators exhibition

There will be a complete overview of vehicles demonstrators including their technology, their engine control and the complete real-time simulation.

### • VEHGAN

Mild-Hybrid urban vehicle: a Smart fortwo vehicle with a natural downsized turbocharged CNG engine.

### • Toyota Prius

The Toyota Prius natural gas demonstrator achieved record fuel efficiency levels in 2006 Challenge Bibendum: an average natural gas consumption of 2.3 kg/100 km

# Program Synopsis

We invite you to connect to the IFP web page of the conference where the detailed program will be regularly updated: [www.ifp.com](http://www.ifp.com), topic "Events".

## Tuesday 25 November

8.30 Registration

9.15 Welcome address by P. Ungerer, Scientific Director (IFP, France)

### Session 1: On-board Energy Storage Systems (ESS)

This session will present the latest developments in the field of ESS modeling and testing using different methods for system level simulation, control and performance evaluation. **Keynote address: New materials for lithium-ion batteries - M. Morcrette** (Université de Picardie, France)

### Session 2: Optimized energy management

This session will present several approaches in the field of on-board energy management optimization for applications to different types of drivetrain architectures and vehicles. **Keynote address: Implementing supervisory control strategies for Mercedes-Benz hybrid vehicles - M. Back** (Daimler AG, Germany)

18.30 Bus departure to Paris, near the hotels and to the restaurant

19.30 Gala dinner at the restaurant "la Maison des Polytechniciens"  
12 rue de Poitiers, 75007 Paris

## Wednesday 26 November

8.30 Registration

9.00 Beginning of the presentations

### Session 3: Modelling and support tools for an optimal design

This session will present dedicated tools for vehicle system simulation and control with a special focus on the potential reduction of energy consumption.

**Keynote address: US hybrid and plug-in hybrid vehicle research program - L. Slezak** (Department of Energy, USA) - *tbc* -

### Session 4: System architectures and specific components

This session will present advanced concepts adapted to hybrid vehicles from component design to vehicle integration. **Keynote address: The PSA hybrid technology - V. Basso** (PSA Peugeot Citroën, France)

17.00 End of the program (*at the latest*) and bus departure to the RER station of Rueil-Malmaison (*connections to the airports and the railway stations*)

# Registration

## Conference fees (VAT incl.)

### Before 3 October 2008

- 450 € for academics or public institute affiliates
- 650 € for industry affiliates

### After 3 October 2008

- 550 € for academics or public institute affiliates
- 750 € for industry affiliates

Special rate for students: 150 € (\*)

(\*) Reduced conference fees will be allowed to students in order to facilitate their participation to this conference upon presentation of the student card and a letter of approval from the laboratory manager.

The conference fees cover attendance at the conference, conference proceedings, lunches, breaks, shuttle service. They do not cover accommodation or the dinners.

## Conference dinner

A dinner is organized for the conference participants on Tuesday 25 November at the restaurant "La Maison des Polytechniciens", mansion built 300 years ago, located 12 rue de Poitiers, 75007 Paris.

Participants wishing to attend have to register at preferential rate: 40 €

Accompanying persons may participate to this dinner upon registration and payment of the full price: 90 €. The confirmation of their participation will depend on available seats number.

## Registration

To register, please complete the enclosed registration form and send it, with your payment, to the administrative secretariat R.Events.

To be accepted, the registration form must be accompanied by the corresponding payment.

Upon receipt of the registration form and the relevant payment, the administrative secretariat will send each participant a letter of acknowledgment.

## Payment

All fees are payable in Euros only:

- by check out to R.Events
- by wire transfer to the bank: BNP MAC-MAHON, 35 Avenue Mac-Mahon, 75017 Paris  
Account owner: R.Events  
Account n° 30004 00775 00010036962 20  
IBAN: FR76 3000 4007 7500 0100 3696 220  
SWIFT: BNPAFRPPTE
- by credit card (Visa, Eurocard, Mastercard)

## Cancellation conditions

All cancellations must be notified in writing to R.Events.

### Before 3 October 2008

40€ penalty will be applied

### After 3 October 2008

50% of the total will be held

### After 25/10/2008:

no refund

## Visa

You may need a visa to enter France from some countries outside the European Union.

Please contact the French Embassy or Consulate in your country, or your travel agency, to check whether or not you will need a visa.

You can ask for the appropriate invitation letter to R.Events.

## Travel discount

### Train

Round-trip train journeys within France can benefit of a special discount.

If you want to use it, please ask for SNCF coupons on the registration form.

### Plane

Discounts are applied to a wide range of airfares, in all classes of travel.

Validity from 20/11/2008 until 1/12/2008.

To access to the preferential rates granted for this event, you can connect to

[www.airfrance-globalmeetings.com](http://www.airfrance-globalmeetings.com) and give the following identifying code: 04764AF.

This circular serves to justify the application of the preferential airfare. Keep it with you as you may be asked for it at any point of your journey.

# Accommodation

Accommodation is not included in the conference registration fees. Participants are required to make their own reservations by contacting the following hotels where block booking at preferential rate has been made by the organizers for 2 nights (Monday 24 November and Tuesday 25 November).

As the Paris area is very crowded at this time of the year, we strongly encourage you to make your reservation as soon as possible. The deadlines are the responsibility of each hotel, after these dates room availability is not guaranteed.

The hotels are located in Rueil-Malmaison, near IFP, and in Paris in the area of the place Charles de Gaulle – Etoile.

In order to benefit from the prices indicated below, please mention «IFP Hybrid» when booking.

## Hotels in Rueil-Malmaison

Hotels	Address	Rate per night (including breakfast)	Deadline
IBIS***	16 boulevard de l'Hôpital Stell 92500 Rueil-Malmaison tel: +33 (0) 1 47 32 96 96	123 €	15 October
LA CHAUMIERE***	20 avenue Albert 1er 92500 Rueil-Malmaison tel: +33 (0) 1 47 32 20 92	117 €	15 October
LES ARTS***	3 rue du Maréchal Joffre 92500 Rueil-Malmaison tel: +33 (0) 1 47 52 15 00	95 €	30 October

## Hotels in Paris

Hotels	Address	Rate per night (including breakfast)	Deadline
BEST WESTERN HOTEL ELYSEES PARIS***	1 rue Brey / 19 avenue de Wagram 75017 Paris Tel.: +33 (0)1 53 81 82 90	160 €	20 October
MAC MAHON***	3 avenue Mac Mahon 75017 Paris Tel.: +33 (0)1 43 80 23 00	150 €	15 October
PRINCESSE CAROLINE***	1 bis rue Troyon 75017 Paris Tel.: +33 (0)1 58 05 30 00	140 €	31 October
HOTEL ASTRID***	27 avenue Carnot 75017 Paris Tel.: +33 (0)1 44 09 26 00	132 €	15 September
HOTEL TROYON**	10 rue Troyon 75017 Paris Tel.: +33 (0)1 43 80 14 09	104 €	15 September

# Access to IFP

## By road

From Paris, exit Porte Maillot, RN 13, Direction La Défense / Saint-Germain-en-Laye

## Using public transport

- RER (Réseau Express Régional), Line A direction to Saint-Germain-en-Laye:
  - get off at Rueil-Malmaison, Victor Hugo exit, take the 467 or 144 bus, and get off at Eglise de Rueil, or take the bus line 244, and get off at Geneviève Couturier
- BUS – Line 258 from La Défense direction Saint-Germain-en-Laye and get off at Bois-Préau.

## Shuttle

A free shuttle service will be organized between Paris (meeting point near the hotels) and IFP for the two days of the conference.

## Meeting point in Paris:

Place Charles de Gaulle-Étoile, at the corner of Avenue Mac Mahon.

Please register with the form here enclosed if you wish to use this service.

## Shuttle schedule:

### 25 November

7.45: Departure from the meeting point to IFP

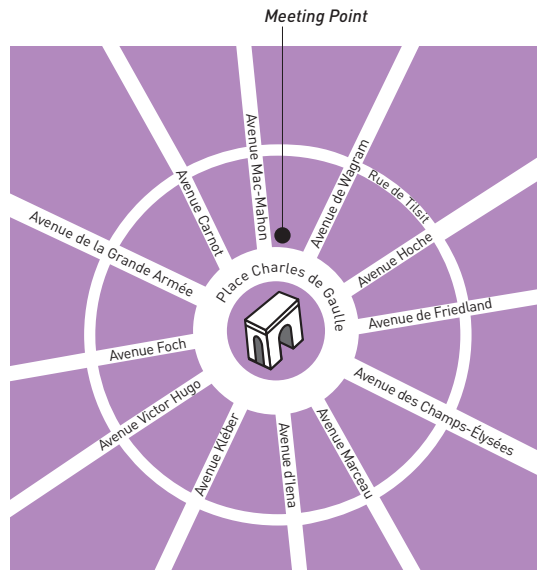
18.30: Departure from IFP to the meeting point and to the restaurant

23.30: Departure from the restaurant to the meeting point and to Rueil-Malmaison

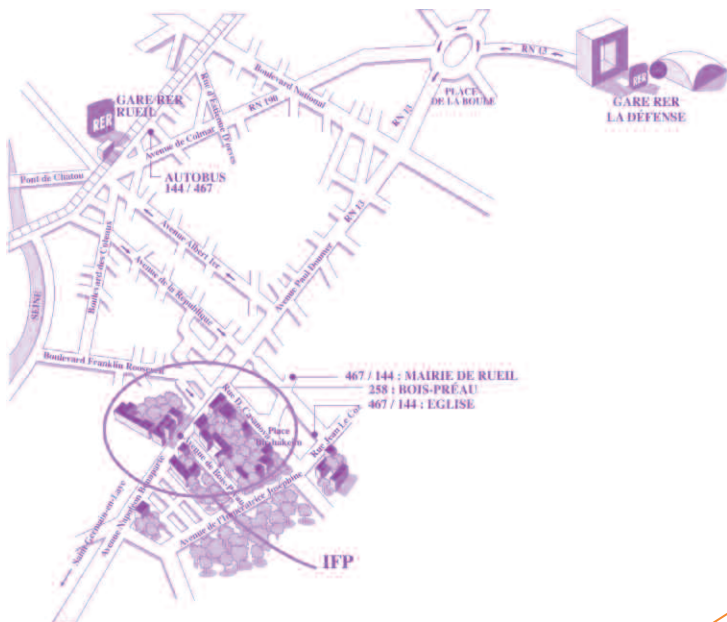
### 26 November

7.45: Departure from the meeting point to IFP

17.00 at the latest: Departure from IFP to the RER station of Rueil-Malmaison



Overview of the place Charles de Gaulle-Étoile



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[www.ifp.com](http://www.ifp.com)