

The European Research Community on Flow,
Turbulence and Combustion

ERCOFTAC Autumn Festival 2008
& 20th Anniversary Celebration



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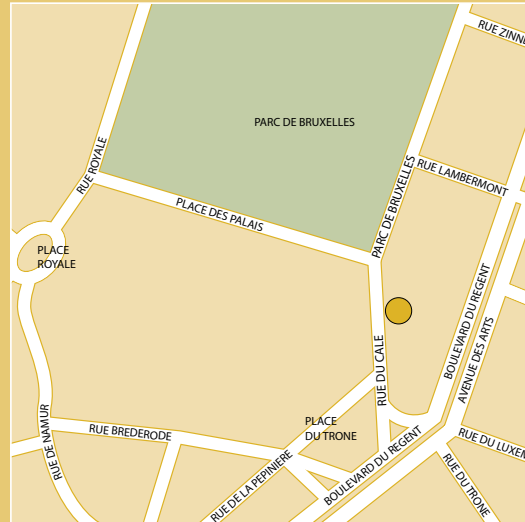
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I N D U S T R Y P R O G R A M M E

**'ENGINEERING INNOVATION
AND DESIGN - THE PAST,
PRESENT AND FUTURE'**

*Prof. Tony Hutton, Chairman of ERCOFTAC, and
Prof. Charles Hirsch, Deputy Chairman of ERCOFTAC,*

are pleased to invite you to attend
the **ERCOFTAC** Autumn Festival
on the 18th and 19th November 2008
at the **Belgian Royal Academy in Brussels**



**Belgian Royal Academy
Brussels,
18th - 19th November 2008**

Hertogstraat/rue Ducale 1,
1000 Brussels

Belgian Royal Academy
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**'ENGINEERING INNOVATION
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This year, 2008, marks the 20th anniversary of ERCOFTAC. Over the past two decades, ERCOFTAC has emerged as the premier European Research Association in the fields of flow turbulence and combustion. It is regarded by many across the globe as the window through which to view the vibrant, world-class research and technical innovation being pursued within the European community. The 2008 Autumn Festival is celebrating this landmark anniversary by organising a special two-day programme, together with a gala dinner. The programme comprises a set of keynote talks, given by leading figures from both academia and industry, which together review the recent past and speculate on possible futures across a number of themes chosen for their contemporary significance.

Registration fee
250 € for members of ERCOFTAC
400 € for non members
80 € for spouses/partners accompanying delegates
to the Gala dinner

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PROGRAMME 18th NOVEMBER

09.30 WELCOME

Opening Address

Prof. Nic SCHAMP, Perpetual Secretary of the Koninklijke Vlaamse Academie van België voor Wetenschappen en Kunsten.

'ERCOFTAC - The First twenty Years'

Prof. Lord Julian Hunt, University College London, U.K.

SESSION 1

VIRTUAL PRODUCT DESIGN

(10.10 to 12.30, Coffee Break Included)

The Session will review evolution in virtual product design over the past 20 years and the opportunities/impact this has had on innovation and performance. It will also conjecture what might transpire over next 20 years, addressing both realistic and more speculative, visionary scenarios.

'Simulation of the Virtual Product: Opportunities and Future Trends'
Dr. Chris Carey, Technical Service Manager, ANSYS North Europe.

'Achievements and Remaining Goals in Aerospace Virtual Product Design'
Prof. John Doherty, QinetiQ and the University of Surrey UK.

'Innovations in Computational Continuum Mechanics driving Virtual Product Design and Analysis'
Prof. David Gosman, Imperial College.

'Challenges in CFD-based Virtual Prototyping and Design'
Prof. Ch. Hirsch, President, NUMECA International.

LUNCH 12.30 TO 13.30

The 2008 Leonardo da Vinci Student Award

19th NOVEMBER 14.00 to 17.00

Each year, the ERCOFTAC regional Pilot Centres invite those students who are about to complete, or who have recently completed PhD studies on aspects of flow, turbulence or combustion to submit a summary to a regional panel. Up to three of these are then selected from each Pilot Centre for entry in to the Europe-wide Leonardo da Vinci Award. Five finalists from this group are then selected by an international panel of experts to present their work during the Festival. This year, this will take place during the afternoon of 19th November. The day will end with the award of the 2008 Leonardo da Vinci Prize to the best student. All are welcome to attend this celebration of the next generation of talented researchers.



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PROGRAMME 19th NOVEMBER

SESSION 3

ENERGY MANAGEMENT AND POWER PRODUCTION CHALLENGES - COMBUSTION AND HEAT TRANSFER

(Split across the two days. 16.00 to 17.00 18th November; 09.00 to 10.00 19th November)

'The Role of Flow Research in the Development of Wind- and Marine-Energy'
Prof. Michael R. Graham, Imperial College, U.K.

'The application of CFD within combustor design'
Dr. Ruud Eggels, Rolls-Royce Deutschland.

COFFEE BREAK 10.00 TO 10.30

SESSION 4

INNOVATION SUPPORT STRUCTURES - PREPARING FOR AND PULLING THROUGH INNOVATION

(10.30 to 12.00)

This Session will address policy and planning for investment in research and technology; strategies for pulling the results from such investment into industrial innovation; and the development and preparation of human capital as both the source and consumer of the products of innovation.

'Micro-channel flow for computer chips, radar and aerospace'
Prof. John R. Thome, EPFL, Switzerland.

'DFG Flow Research Funding - Strategy and Tools'
Dr. Cornelia Hillenherms, DFG (German Research Foundation).

'Smart oil fields: From the laboratory to real life'
Dr. René Peters, TNO, The Netherlands.

'From research to industrial application: Innovation policy at IFP illustrated with examples from CFD for piston engines'
Dr. Christian Angelberger, Institut Francais de Pétrole, France..

DISCUSSION LED FROM THE CHAIR 12.00 TO 12.30

CLOSE 12.30

SESSION 2

SIMULATION NOW AND IN THE FUTURE - BARRIERS & OPPORTUNITIES

(13.30 to 16.00, Coffee Break Included)

'Treating the Problem of Turbulence - Past, Present and Future'
Prof. Dominique Laurence, University of Manchester, UK and Electricité de France.

'High Performance Computing - From Kiloflops to Petaflops & Beyond'
Dr. David Standingford, BAESystems.

'Future Simulation Concepts in Aeronautics'
Dr. Eric Chaput, Senior Manager for Multidisciplinary Methods & Tools, Flight Physics Integration, Airbus.

'Simulation in Medical Applications: Current Status and Future Prospects'
Prof. W. Schroeder, RWTHAachen University, Germany.

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(Split across the two days. 16.00 to 17.00 18th November; 09.00 to 10.00 19th November)

The Session will review developments over the past 20 years and the opportunities/impact these have had on innovation and performance. It will also speculate what the next 20 years might bring. How will increasing world demand against finite supply, as well as ever increasing political concern over global warming drive technology and innovation?

'Fossil Power Generation in a Carbon Constrained World'
Dr. Daniel Hofmann, Siemens AG - Energy Sector, Germany.

'Turbulence Control, one of the seven challenges of Fusion Power'
Prof. Niek Lopes Cardozo, FOM Institute for Plasma Physics Rijnhuizen, The Netherlands.

19.00 RECEPTION

20.00 20TH ANNIVERSARY GALA DINNER