SECOND ANNOUNCEMENT

European Conference on Computational Fluid Dynamics

Egmond aan Zee, The Netherlands

September 5 – 8, 2006
OBJECTIVES

The goal of the ECCOMAS CFD conferences is to periodically bring together researchers, industrialists and students working in broad parts of computational science and engineering. The focus is on computational fluid dynamics, computational acoustics, computational electromagnetics, computational mathematics and related fields in the computational sciences. A forum is provided for fostering exchange of information and experience in these rapidly developing fields, and to promote transfer of knowledge and technology between research and industry on a European and global scale. Advances made in numerical methods, software development and computing technology are brought to bear on challenges posed by mathematical modelling in the applied sciences. Young researchers find a good opportunity to widen their perspective on the dynamic and exciting field of computational science and engineering.

The conference includes invited lectures, mini-symposia and peer-reviewed contributed papers. The link between research and industry is fostered by special technology sessions.

Previous ECCOMAS CFD conferences have been held in Stuttgart (1994), Athens (1998) and Swansea (2001). Furthermore, computational fluid dynamics, computational mechanics and related fields have been a major topic at the ECCOMAS congresses held in Brussels (1992), Paris (1996), Barcelona (2000) and Jyväskylä (2004).

Information on ECCOMAS can be found at: http://www.cimne.upc.es/eccomas/.
The website of the conference is: http://pcse.tudelft.nl/eccomas2006/

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CALL FOR PAPERS

Conference Website

The conference website http://pcse.tudelft.nl/eccomas2006/ will give updated information on the Scientific Program and practical arrangements of the conference. Registration to the conference will only be available through the website.

Minisymposia

Proposals for Minisymposia are welcomed. A Minisymposium consists of a 30-minute introductory lecture and four 20-minute lectures, for a total duration of two hours. Speakers should not all come from the same institute. A Minisymposium proposal should consist of: name of organizer, topic of the Minisymposium, names of speakers, and preferably (working) titles of the presentations. Proposals should be sent by email to the conference secretariat before January 15, 2006. The Minisymposium will be chaired by the organizer, who is responsible for the acceptance, correct format and timely collection of abstracts and full papers, that will be published in the same way as the contributed presentations, see below. The deadline for submission of abstracts and full papers of Minisymposia is May 15, 2006.

Contributed presentations

One-page abstracts of 20-minute presentations on topics related to the conference themes are invited. Authors are kindly requested to follow the submission procedure outlined at the conference website, and to use the abstract template available from the conference website. Abstracts will be peer-reviewed. Abstracts of accepted contributions will appear in the conference book that will be available at the beginning of the conference. The full papers will be published in the conference proceedings, to appear on a CDROM that will be available at the start of the conference. For the full papers, the templates available at the conference website must be used. Only papers from participants registered before June 15, 2006, will be published.

Dates to remember

- Deadline for Minisymposium proposals: January 15, 2006
- Deadline for one-page abstracts of contributed presentations: January 15, 2006
- Notification of acceptance: March 1, 2006
- Deadline for full papers: May 15, 2006
- Deadline for early registration: June 15, 2006
- Deadline for registration of contributors to proceedings: June 15, 2006

Conference Exhibition

The conference organizers offer exhibition space to interested companies and co-operation partners. The Exhibition will be situated in an area near the main session rooms. The ECCOMAS CFD 2006 Exhibition will include the following exhibits:
- Software, hardware
- Books, journals
- Industrial services, consulting

For more information please contact the Secretariat:
Email: eccomasCFD2006@math.tudelft.nl

Scientific Programme

The scientific programme consists of invited plenary keynote presentations by renowned experts, Minisymposia, Special Technology Sessions and refereed contributed papers.

Invited Speakers

R. de Borst, Delft University of Technology
- Multiscale models in computational fluid and solid mechanics
E. Chaput, Airbus: Toulouse
- Design challenges in the Airbus A380 and A350 projects
A. Fogelson, University of Utah
- Computational investigations of the role of flow in thrombosis
A.D. Gosman, Imperial College London
- Computational Fluid Dynamics, title to be announced
S. Idelsohn, CIMNE-INTEC, Santa Fe (Argentina)
- The Particle Finite Element Method: an efficient and accurate method to solve CFD problems including free-surfaces and breaking waves
G. Lube, University of Göttingen
- Stabilized FEM for incompressible flows - A critical review and new trends
E. Michiels, University of Michigan, Ann Arbor
Fast time domain integral equation solvers: a maturing technology?
C.L. Morfey, University of Southampton
Modelling sound radiation of turbulent jets and wall layers
P. Rostand, Dassault, Saint Cloud,
Industrial Applications, title to be announced
D. Schwamborn, DLR, Göttingen
The DLR TAU-code – Recent applications in research and industry

CONFERENCE TOPICS
1. Computational fluid dynamics
   Aerodynamics
   Aerothermodynamics
   Atmospheric chemistry
   Boundary layers and transition
   Combustion and reactive flows
   Environmental flows
   Flow control and optimization
   Flows with heat transfer
   Fluid-structure interaction
   Free boundary flows
   Grid generation and adaptivity
   High speed flows
   Internal flows
   Microfluidics
   Multiphase flows
   Non-Newtonian and complex fluids
   Numerical schemes
   Parallel computing in CFD
   Physiological flows
   Turbulent flow simulation
   Unsteady flows

2. Computational Acoustics
   Aero-acoustics
   Direct and inverse scattering problems
   Fluid and structure acoustics
   Noise control
   Noise abatement in aeronautics
   Noise abatement in the automotive industry
   Nonlinear acoustics
   Room acoustics
   Smart materials and noise reduction
   Vibro-acoustic modelling

3. Computational Electromagnetics
   Antennas
   Composite and complex media
   Electromechanical systems
   EM analysis of integrated circuits
   Frequency selective and absorbing surfaces
   Hybrid and multi-scale optimization
   MEMS modelling
   Optimal shape design
   Radar cross section
   Scattering and inverse scattering
   Semiconductor device modelling
   Superconducting devices
   Waveguides

4. Computational Mathematics and Numerical Methods
   Dynamical systems
   Evolutionary algorithms
   Grid computing
   Grid generation
   Image processing
   Mathematical finance
   Numerical linear algebra
   Parallel computing
   Scientific visualization
   Signal processing

5. Optimization and Control
   Applications, methods and software
   Automatic differentiation in CFD
   Data assimilation and model coupling
   Evolutionary methods
   Inverse problems
   Neural networks
   Optimal control of differential equations
   Optimal design
   Reduced order models and low-complexity optimization
   Shape optimization for fluids

6. Computational Methods in Life Sciences
   Physiological flows
   Biomathematics
   Biomedical simulation
   Biomedical devices
   Ecology
   Epidemiology
   Environmental sciences
   Medical technology
   Modelling and simulation
   Natural hazards
   Neurobiology
   Population dynamics
   Visualization

7. Industrial Applications
   Aero-acoustics
   Aeronautics
   Automotive engineering
   Chemical engineering
   Electrical engineering
   Electronics
   Energy technology
   Environment
   Fluid-structure interaction
   Image recognition and enhancement
   Medical applications
   Microdevices
   Naval architecture
   Noise abatement
   Process control
   Scientific visualization
   Software development
   Space technology
   System engineering
   Traffic and transport
   Turbomachinery
   Vehicle design and transport
   Virtual reality
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H. Voss, Germany
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W. Wendland, Germany

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Members:
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H.G. Bock, Germany
J.F. Bonnans, France
M. Fisher, United Kingdom
K. Giannakoglou, Greece
A. Griewank, Germany
P. Koumoutsakos, Switzerland
K. Kunisch, Austria
J. Périaux, France
O. Pironneau, France
D. Tsahtalis, Greece
M. Tucsnak, France
J. Wild, Germany
E. Zuazua, Spain

6. Computational Methods in Life Sciences
Chairmen:
W. Jäger, Germany
V. Capasso, Italy
Members:
P. Bastian, Germany
M. Bercover, Israel
P. Deuflhard, Germany
A. Deutsch, Germany
W. Fitzgibbon, USA
M. Gyllenberg, Finland
J. Kappel, Austria
A. Micheletti, Italy
G. Naldi, Italy
J.G. Verwer, The Netherlands
F.N. van de Vosse, The Netherlands
G. Wittum, Germany
Z. Zlatev, Denmark

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R. Masson, France
A.E. Mynett, The Netherlands
R. Schwane, The Netherlands
H. Snel, The Netherlands
B.H.A.A. van den Brule, The Netherlands
CONFERENCE VENUE
The conference will take place at Hotel Zuiderduin in Egmond aan Zee, The Netherlands. The hotel is located almost at the beach of the picturesque seaside village of Egmond aan Zee, at 45 km from Amsterdam. The borough of Egmond consists of a trio of villages. Egmond-Binnen is the farthest inland, surrounded in spring by colorful fields of bulbs in bloom. The historical Adelbertusfield was already cultivated in the ninth century by monks from ancient Egmond Abbey. The Abbey was laid waste in the sixteenth century and rebuilt several times since. Today Benedictines live there. They welcome visitors interested in their candlemaking activities.

In Egmond aan den Hoef one finds the Historical Information Centre. Many sights here remind the visitor of times past, in which the famous counts of Egmond played a prominent role. Only remnants of the castle are left, but the chapel is still intact and can be visited. Egmond aan Zee started as a medieval fishing village. The scene is dominated by the "Jan van Speijk" lighthouse, named after a naval hero. The modern station of the Royal Dutch Rescue Service has replaced the shed that housed the rowing boat in which volunteers risked their lives to get sailors off ships in distress among the dangerous shoals along the coast. The wide sandy beach invites swimmers, surfers and sunbathers, and features pavilions and other facilities. Alfresco pubs and restaurants, a subtropical swimming paradise, sports facilities and a lively shopping district make for a perfect holiday atmosphere. Where the village ends, the natural beauty of the Noord-Holland Dune Reserve begins.

Registration and fees
On-line registration and instructions for payment of fees are available at the conference website pcse.tudelft.nl/eccomas2006/
The early registration rates are applicable if payment is received before July 25, 2006.

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<tr>
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<th>Early</th>
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<tbody>
<tr>
<td>Member ECCOMAS associations</td>
<td>€ 425</td>
<td>€ 475</td>
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<tr>
<td>Non-members</td>
<td>€ 475</td>
<td>€ 525</td>
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<tr>
<td>Students</td>
<td>€ 300</td>
<td>€ 350</td>
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<tr>
<td>Accompanying persons</td>
<td>€ 100</td>
<td>€ 100</td>
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The student fee applies only to full-time PhD and MSc students. A copy of the student ID-card or a letter from the advisor confirming studentship should be faxed to the conference secretariat. Accompanying persons must be family members.

The fee for members, non-members and students includes:
- Book of Abstracts
- Proceedings on CDROM
- Excursion and conference dinner
- Lunches
- Coffee/tea during breaks
The accompanying person's fee includes the excursion and conference dinner.

Registration cancellation
For written cancellations received before July 1, 2006, registration fees will be fully refunded. For written cancellations received between July 1 and August 1, the registration fee is € 100. After August 1 no refund will be made.

Accommodation
Hotel Zuiderduin offers you a special conference arrangement of:
- Single room: € 247,50 per person
- Double room: € 192,50 per person

This arrangement includes:
- 3 Hotel nights with breakfast
- 3 Dinners (buffet, different themes)
- Free use of swimming pool and sauna

In Hotel Zuiderduin double rooms have either double or twin beds and all hotel rooms have a shower or bath. All rooms have internet connection.

The hotel restaurant is prepared to accommodate special dietary requests.
Other facilities in the hotel are indoor pool, sauna, squashcourt, beauty parlour, hairdresser, fitness center, bistro pub
USEFUL TO KNOW

Climate:
The Netherlands has a sea climate. In September the weather can be unstable, with temperatures between 16 and 23 degrees.

Currency:
The local currency is Euro (divided into 100 cents). International credit cards are accepted all over the Netherlands in department stores, museums and most shops.

Dutch Visa regulations:
The Netherlands belongs to the European Union. EU citizens and most other nationals do not need an entry visa to the Netherlands. For visa regulations contact your travel agent or the nearest Dutch embassy or consulate.

Health regulations:
No vaccinations are required when entering the Netherlands from any other country.

Insurance:
The organizers cannot be held responsible for injury to conference attendees or for damage to or loss of their personal belongings, regardless of the cause. Attendees are advised to make their own insurance arrangements.

ABOUT ECCOMAS
The European Community on Computational Methods in Applied Sciences (ECCOMAS) was created in 1993 with the aim of providing a high level of coordination of scientific meetings and related activities in Europe in the field of computational methods for the applied sciences. The ECCOMAS organization groups together European regional or national organizations of researchers in computational modelling, numerical methods and simulation in engineering and applied sciences. ECCOMAS is affiliated with the International Association for Computational Mechanics (IACM) (www.iacm.info). The website of ECCOMAS is www.cimne.upc.es/eccomas/

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Associations represented in ECCOMAS
ACME Association for Computational Mechanics in Engineering, United Kingdom
AIMETA Associazione Italiana di Meccanica Teorica e Applicata, Italy
<table>
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<tr>
<th>Organisation</th>
<th>Description</th>
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<tbody>
<tr>
<td>APMTAC</td>
<td>Associação Portuguesa de Mecânica Teórica, Aplicada e Computacional, Portugal</td>
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<tr>
<td>BFIT</td>
<td>Board of the Swiss Federal Institutes of Technology, Switzerland</td>
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<tr>
<td>BNCM</td>
<td>Belgian National Committee for Theoretical and Applied Mechanics, Belgium</td>
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<td>CEACM</td>
<td>Central European Association for Computational Mechanics, Central Europe</td>
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<td>CSMA</td>
<td>Computational Structure Mechanics Association, France</td>
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<tr>
<td>ERCOFAT</td>
<td>European Research Community on Flow Turbulence and Combustion, Belgium</td>
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<td>FMS</td>
<td>Finnish Mathematical Society, Finland</td>
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<td>GACM</td>
<td>German Association of Computational Mechanics, Germany</td>
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<tr>
<td>GAMM</td>
<td>Gesellschaft für Angewandte Mathematik und Mechanik, Germany</td>
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<td>GAMNI/SMAI</td>
<td>Groupe pour l'Avancement des Méthodes Numériques de l'Ingénieur / Société de Mathématiques Appliquées et Industrielles, France</td>
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<td>GRACM</td>
<td>Greek Association for Computational Mechanics, Greece</td>
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<td>HSTAM</td>
<td>Hellenic Society for Theoretical and Applied Mechanics, Greece</td>
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<td>IACMM</td>
<td>Israel Association of Computational Methods in Mechanics, Israel</td>
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<td>IMA</td>
<td>Institute of Mathematics and its Applications, UK</td>
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<td>ISSEC</td>
<td>Irish Society of Scientific and Engineering Computations, Ireland</td>
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<td>NMC</td>
<td>Netherlands Mechanics Committee, The Netherlands</td>
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<td>NOACM</td>
<td>Nordic Association for Computational Mechanics, Denmark, Norway, Finland, Estonia, Latvia, Lithuania, Sweden</td>
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<tr>
<td>ONIV</td>
<td>Association for Scientific and Engineering Computations, Russia</td>
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<td>PACM</td>
<td>Polish Association for Computational Mechanics, Poland</td>
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<td>SEMA</td>
<td>Sociedad Española de Matemática Aplicada, Spain</td>
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<td>SEMNI</td>
<td>Sociedad Española de Métodos Numéricos en Ingeniería, Spain</td>
</tr>
<tr>
<td>SIMAI</td>
<td>Società Italiana di Matematica Applicata e Industriale, Italy</td>
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<tr>
<td>TNCTAM</td>
<td>Turkish National Committee on Theoretical and Applied Mechanics, Turkey</td>
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Welcome to the Netherlands.
……..with its canals, clogs, tulips, windmills & bikes...

The Netherlands occupies an area of 41,160 square kilometers and is home to over 16 million people. Partly reclaimed from the waters of the North Sea, it is Europe's most densely populated country. The Netherlands enjoyed a golden age from around 1580 to 1740, when trade and manufacturing flourished, and the United East India Company and the West India Company sent ships to the Far East in search of spices and other exotic goods, while colonising the Cape of Good Hope, Indonesia, Surinam, the Antilles, and New Amsterdam (now New York). Today, only the Netherlands Antilles is an autonomous part of the Kingdom of the Netherlands. With half of the country lying below sea level, the struggle to keep the North Sea at bay has been a constant feature in the history of this unique country. Disaster struck in 1953, when a high spring tide accompanied by a severe storm broke the dykes in Zeeland. As a consequence 1835 people drowned. To make sure such a tragedy would never occur again, the Delta Project blocked the southwest river deltas using a network of dams, dykes and an impressive 3.2km storm surge barrier.

The Dutch have brought forth many famous painters, including Rembrandt, Van Gogh, Vermeer and Mondriaan. The Rijksmuseum in Amsterdam showcases their works. Amsterdam is one of the world's most interesting cities. With canals and monuments, gabled houses, countless museums, arts festivals, bikes and an irrepressible joie de vivre, you'll want to stay and stay. However, don't ignore places like Delft (home to Delft University of Technology), Leiden and Haarlem with their old canal-girdled centres, and The Hague - elegant home of the Dutch government and the Royals. The town of Delft is also famous for its distinctive blue and white pottery. Stroll along the canals, enjoy first-rate beer, hire a bike and explore this ultimate bicycle-friendly country.

On www.alltravelholland.com you can find much interesting information.

Conference secretariat
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http://pcse.tudelft.nl/eccomas2006/