ECCOMAS Thematic Conference

ADMOS 2005

International Conference on Adaptive Modeling and Simulation

8-10 September 2005, Barcelona, Spain

An IACM Special Interest Conference

Location

The conference will take place at the Universitat Politecnica de Catalunya, Barcelona, Spain

Registration Fees

The registration fees, including social events, with early registration applicable if received before 30 June 2005 are:

	Early	Late
Delegates	400 €	500 €
Students	200 €	250 €
ECCOMAS members	350 €	450 €

The fees will include:
· Conference Proceedings
· Attendance at all scientific sessions
· Coffee breaks, reception and banquet

Social Programme

A social programme for delegates will be arranged, including a reception and a banquet at a local place of interest, as well as a social programme for accompanying persons.

Accommodation

The organizers have arranged block reservations with hotels close to the conference site. Details can be found on the website.

Conference Secretariat

International Center for Numerical Methods in Engineering (CIMNE), Edificio C1, Campus Norte UPC,
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http://congress.cimne.upc.es/admos05

Supporting Organisations

· European Community on Computational Methods in Applied Sciences (ECCOMAS)
· International Association for Computational Mechanics (IACM)
· Chalmers University of Technology, Göteborg, Sweden
· Universitat Politécnica de Catalunya

http://congress.cimne.upc.es/admos05

Objectives

The first edition of the International Conference on Adaptive Modeling and Simulation, ADMOS 2003, was held at Chalmers University, in Göteborg (Sweden) from September 29 to October 1, 2003. The contributions to ADMOS 2003 demonstrated that Adaptivity is currently one the most challenging topics in Computational Mechanics. The second edition of ADMOS will take place at Universitat Politècnica de Catalunya (UPC), in Barcelona (Spain).

The main goal of Adaptivity is to guarantee the quality of Numerical Modeling. The errors polluting the quality of the solution come from both the physical model and the discretization, the mesh. The assessment of both the quality of the model (validation) and the quality of the numerical scheme (verification) are important to obtain a certificate for the final solution. Then, if the solution does not reach the prescribed accuracy, both the model and the discretization have to be adapted.

The design process in the industrial practice is a trial and error loop. In the kernel of the design loop, Numerical Simulations are essential to replace prototyping and laboratory testing. The implementation of the adaptive approach allows controlling uncertainty in the Simulation part of the design loop. This is especially important in the design of critical devices, when the failure connotes losing safety.
The objective of the ADMOS 2005 conference on Adaptive Modeling and Simulation is to present and discuss the current state-of-the-art developments on the field. Adaptivity is ever more integrated in the industrial practice of Computational mechanics. Consequently, ADMOS is encouraging and devoting special interest to contributions on industrial applications of Adaptive strategies.

Conference Topics

· Verification and validation
· Error estimates
· Adaptive techniques (h,p,d, goal oriented)
· Numerical methods (FEM, BEM, FDM, Meshless, Finite Volumes)
· Meshing and remeshing
· Equation solvers (iterative, parallell, multigrid, preconditioning)
· Optimization
· Adaptive design loop, integration with CAD and VR
· Applications (solids, structures, fluids, acoustics, electromagnetics, environmental, multifield, nonlinear and time dependent)
· Industrial and engineering applications

Conference Chairmen

N.-E. Wiberg, Chalmers Tech.Univ., Sweden
P. Díez, UPC, Spain

Technical Advisory Panel

P. Beckers, *Belgium*	J.P. Moitinho, *Portugal*
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K. Mathisen, *Norway*	

An ECCOMAS Thematic Conference

ADMOS2005 is one of the Thematic Conferences of the European Community on Computational Methods in Applied Sciences (ECCOMAS) and it has been promoted by the European Committee in Solids and Structural Mechanics (ECSSM) of ECCOMAS. For further information on ECCOMAS visit: **www.eccomas.org**
ADMOS 2005 is also an IACM special interest conference. More information about IACM: **www.iacm.info**

Call for Papers

One page abstracts of contributions related to the topics of the conference are invited to be submitted by 15 January 2005. **Authors have to register and submit their abstracts via the Conference Web Site.** Notification of acceptance will be given by 15 February 2005. Then, the format for the papers to be published in the conference proceedings will be sent to the authors and included in the web page. In order to produce the proceedings in time for distribution to the delegates at the conference, full papers will be required by 15 June 2005.

Important Dates

Deadline for presenting a one page abstract	25 February 2005
Acceptance of the paper and instructions for writing a full paper	25 March 2005
Deadline for submitting the full paper and early payment	20 June 2005
Booking of hotel accommodation	as soon as possible