



## ADMOS 2003

### International Conference on Adaptive Modeling and Simulation

29 September - 1 October 2003,  
Göteborg, Sweden

An IACM Special Interest Conference

### Objectives

Engineers and scientists use models to predict the behaviour of physical systems and to verify their designs. Mathematical models combined with numerical simulations have become indispensable to make accurate predictions. In the design of sophisticated engineering systems, these predictions must reach a level of accuracy never dreamed of. The aim of adaptivity is to assess and efficiently control the accuracy of these numerical simulations.

The objective of the ADMOS2003 conference on Adaptive Modeling and Simulation is to present and discuss methods and techniques to increase quality, efficiency and robustness of computations. The final goal is then to be able to make predictions to a demanded level of accuracy, and to integrate modeling, simulation and visualization in an adaptive design loop.

The conference is devoted to both basic methods and industrial implementation and applications.

Among the basic methods we may recognize error estimation techniques, meshing and remeshing techniques, goal oriented adaptivity, iterative solvers for systems of equations, optimization, etc.

In overall integration, geometrical and CAD modelling, numerical analysis and visualization are coupled in a complete loop. The industrial application should be highlighted as it is believed that the adaptive techniques are of strategic importance to get reliable and cost efficient designs. Sessions related to specific topics of the conference will be introduced by a keynote lecture in the respective field. These keynote lectures will be complemented by invited sessions organized by recognized experts in specific research and applied areas, as well as contributed papers.

### Conference Topics

- Error estimation
- Adaptive techniques (h,p,d)
- Numerical methods (FEM, BEM, FDM, Meshless)
- Meshing and remeshing
- Equation solvers (iterative, parallel, multigrid, preconditioning)
- Optimization
- Adaptive design loop, integration
- 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**, Univ. Politècnica de Catalunya, Spain

### Important Dates

- Deadline for presenting a one page abstract  
*15 January 2003*
- Acceptance of the paper and instructions  
*15 February 2003* for writing a full paper
- Deadline for submitting the full paper:  
*15 June 2003*
- for early payment: *30 June 2003*
- Booking of hotel accommodation: *as soon as possible*

### Conference Secretariat

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