

OBJECTIVES

Following the very successful ECCM-2006 conference in Lisbon, it was decided by ECCSM and ECCOMAS to hold the next ECCM in Paris. The congress is organized jointly by CSMA (French community for computational mechanics) and by GAMM (German society for Applied Mathematics and Mechanics). Recent developments in the field of computational solids mechanics and coupled problems will be emphasized. Non-linear computations and new discretization methods will be at the centre of this conference where European scientists in computational mechanics will have a unique occasion to get together and interact.

CONFERENCE TOPICS

- Atomistic computational methods
- Boundary element methods
- CAD, CAM and CAE and finite element integrations
- Composite materials, structures and applications
- Computational contact mechanics and tribology
- Computational dynamic failure and fracture
- Computational fracture and damage mechanics and enhanced continua
- Computational geosciences
- Computational imaging and visualization
- Computational materials sciences and micromechanics
- Computational methods for adaptive systems, structures and smart materials
- Computational methods for nanotechnology, MEMS/NEMS devices
- Computational methods for non-smooth and multibody problems
- Computational methods for seismic analysis and design
- Computational methods for wave motion, acoustics and non destructive evaluation
- Computational methods in biomechanics and life sciences
- Computational methods in medium and high frequencies
- Computational modeling of phase transformations
- Coupled formulations, fluid-structure interactions, multi-fields and multiphysics problems
- Electromechanical and magnetomechanical analysis
- Environmental engineering
- Experimental mechanics, simulation, validation
- Geometrically and materially nonlinear problems, computational constitutive modelling.
- Inverse problems, identification, data and signal processing
- Innovative industrial applications of simulation
- Large scale linear algebra, multi-scale and domain decomposition methods and parallel computing

- Linear and nonlinear dynamics, testing, impact and crashworthiness
- Meshless, extended or enriched finite element s, level-sets
- Modelling and simulation of processes and manufacturing
- Multidisciplinary optimization and robust design
- Multiscale modeling for materials and structures
- Sensitivity analysis and optimization
- Soft computing methods, artificial intelligence, expert systems
- Uncertainty modeling and quantification, stochastic mechanics
- Validation, robust design and relation to experiments
- Verification, local and global error control, adaptivity

ORGANIZING COMMITTEE

Conference Chairmen

- O. Allix, ENS Cachan, France
- P. Wriggers, Leibniz Universität Hannover, Germany

Members

- T. Charras (General Secretary), CEA, France
- H. Ben Dhia, Ecole Centrale Paris, France
- M. Bonnet, Ecole Polytechnique, France
- D. Neron, ENS Cachan, France
- A. Letellier, CEA, France

INTERNATIONAL PROGRAMME COMMITTEE

- E. Oñate (President of IACM), Polytechnic University of Catalunya, Spain
- H. Mang (President of ECCOMAS), Technical University of Vienna, Austria
- M. Papadrakakis (President of ECCM-S), National Technical University of Athens, Greece
- O. Allix (Co-Chairman), ENS Cachan, France
- P. Beckers, University of Liege, Belgium
- A.L. Borokov, Technology University of St. Petersburg, Russia
- R. de Borst, Delft University, Belgium
- T. Burczynski, Silesian University of Technology, Poland
- D. Givoli, Israel Institute of Technology, Israel
- M. Kleiber, Polish Academy of Science, Poland
- P. Ladevèze, ENS Cachan, France
- C. A. Mota Soares, Technical University of Lisbon, Portugal
- R. Ohayon, CNAM Paris, France
- D.R.J. Owen, University of Wales, United Kingdom
- E. Ramm, University of Stuttgart, Germany
- B. Schrefler, University of Padua, Italy
- E. Stein, University of Hannover, Germany
- N.E. Wiberg, Chalmers University, Sweden
- P. Wriggers (Co-Chairman), IKM/LUH, Germany