

# Complas 2005

## Conference Secretariat

International Center for Numerical Methods in Engineering (CIMNE), Edificio C1, Campus Norte UPC, Gran Capitán s/n, 08034 Barcelona, Spain  
 Phone +34 934017441 Fax +34 934016517  
 complas@cimne.upc.es  
<http://congress.cimne.upc.es/complas05>



Güell Park (Gaudi), Barcelona, Spain

## An ECCOMAS Thematic Conference

COMPLAS 2005 is one of the Thematic Conferences of the European Community in 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](http://www.eccomas.org)

## Location

The conference will take place at the Conference Hall of the School of Civil Engineering at the Technical University of Catalonia (UPC), Edificio C2, Gran Capitán s/n, 08034 Barcelona.

## Registration Fees

The registration fees, including social events, with early registration applicable if received before 10 June 2005 are:

	Early	Late
Delegates	400 €	500 €
Students	200 €	250 €

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

Block reservations at preference rates will be arranged by the organizers. Detailed information will be available on the Conference site, on the link "Accommodation".

## Supporting Organisations

- European Community on Computational Methods in Applied Sciences (ECCOMAS)
- International Association for Computational Mechanics (IACM)
- International Center for Numerical Methods in Engineering (CIMNE), Barcelona, Spain
- Universitat Politècnica de Catalunya

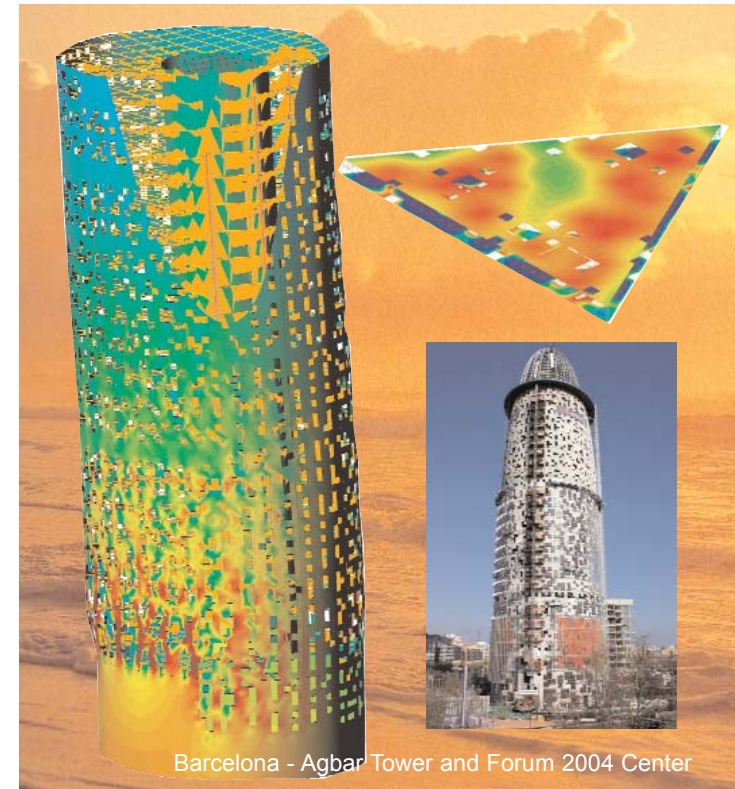


# Complas 2005

## VIII International Conference on Computational Plasticity Fundamentals and Applications

Barcelona, 5-8 September 2005

An IACM Special Interest Conference



Barcelona - Agbar Tower and Forum 2004 Center

<http://congress.cimne.upc.es/complas05>

## Objectives

Previous meetings in the COMPLAS series were held in Barcelona in 1987, 1989, 1992, 1995, 1997, 2000 and 2003. COMPLAS 2003 attracted some 400 participants. COMPLAS 2005 will address both the theoretical bases for the solution of plasticity problems and the numerical algorithms necessary for efficient and robust computer implementation. The ability to provide numerical simulations for increasingly complex problems is advancing rapidly due to both remarkable strides in computer hardware development and the improved maturity of computational procedures for non-linear systems. Significant advances have been made in the formulation and implementation of algorithms for static and dynamic problems involving finite strains, complex contact interaction laws, constitutive material behaviours including multi-physics or multi-scale effects, progressive large scale fracturing, etc.. Such advances, however, demand a closer interaction between numerical analysts and material scientists in order to produce theoretical models which provide a response in keeping with fundamental material principles and experimental observations. Numerical techniques, and in particular finite element and discrete element methods, are now extensively employed in non-linear deformation predictions and very often offer the only means of solution for practical engineering problems. It is therefore essential to ascertain that such techniques can be reliably employed in industrial and R&D applications. COMPLAS 2005 aims to act as a forum for practitioners in the field to discuss recent advances and identify future research directions. Sessions related to specific topics of the conference will be introduced by a Keynote Lecture in the field. These Keynote Lectures will be complemented by Invited Sessions organised by recognised experts in targeted research areas, as well as by contributed papers received from the general Call for Papers.

## Conference Topics

- Multi-fracturing solids
- High velocity impact
- Composites
- Damage, fracture & fatigue
- Multi-physics problems
- Multi-scale material models
- Parallel processing computations
- Environmental and Geosciences
- Multi-body and non-linear dynamic
- Forming process simulations
- Contact problems
- Biomechanics
- Granulation processes
- Advanced material models
- Innovative computational models (FEM discrete element methods, meshless methods, etc)
- Industrial applications
- Nano-mechanics

## Conference Chairmen

- D. R. J. Owen** University of Wales Swansea, UK  
**E. Oñate** Universitat Politècnica de Catalunya, Spain

## Conference Manager

- B. Suárez** Universitat Politècnica de Catalunya, Barcelona, Spain

## Technical Advisory Panel

- C. Agelet de Saracibar, *Spain*  
F. Armero, *USA*  
A. H. Barbat, *Spain*  
J. L. Batoz, *France*  
Z. Bazant, *USA*  
T. Belytschko, *USA*  
R. de Borst, *The Netherlands*  
M. Boyce, *USA*  
R. Borja, *USA*  
M. Cervera, *Spain*  
J. L. Chenot, *France*  
P. A. Dawson, *USA*  
J. Donea, *Belgium*  
G. Duffett, *Spain*  
E. Dvorkin, *Argentina*  
R. Feijoo, *Brazil*  
A. Gens, *Spain*  
M. Geradin, *Italy*  
G. Holzappel, *Austria*  
A. Huerta, *Spain*  
A. Ibrahimbegovic, *France*  
M. Kleiber, *Poland*  
B. Kroplin, *Germany*  
P. Ladeveze, *France*  
W.K. Liu, *USA*  
T. Laursen, *USA*  
G. Maier, *Italy*  
H. Mang, *Austria*  
C. Miehe, *Germany*  
J. Miquel, *Spain*  
R. Ohayon, *France*  
S. Oller, *Spain*  
J. Oliver, *Spain*  
M. Ortiz, *USA*  
M. Papadrakakis, *Greece*  
M. Pastor, *Spain*  
D. Peric, *UK*  
G. Pijaudier-Cabot, *France*  
E. Ramm, *Germany*  
B. D. Reddy *Capetown, South Africa*  
P. Roca, *Spain*  
T. Rodic, *Slovenia*  
A. Rodriguez, *Spain*  
K. Runesson, *Sweden*  
B. Schrefler, *Italy*  
E. Stein, *Germany*  
R. L. Taylor, *USA*  
A. Samuelsson, *Sweden*  
S. W. Sloan, *Australia*  
I. M. Smith, *UK*  
N.-E. Wiberg, *Sweden*  
K. Willam, *USA*  
P. Wriggers, *Germany*  
G. Yagawa, *Japan*  
N. Zabarras, *USA*  
O.C. Zienkiewicz, *UK*

## Important Dates

- |   |                     |
|---|---------------------|
| Deadline for presenting one page abstract                         | 15 th February 2005 |
| Acceptance of the paper and instructions for writing a full paper | 15 th March 2005    |
| Deadline for submitting the full paper and early payment          | 10th June 2005      |
| Booking of hotel accommodation                                    | as soon as possible |



View of Barcelona from the harbour

## Complas 2005

### How to register and submit contributions

Authors are invited to submit their contributions on any of the conference topics. Submission of abstracts and papers and conference registration should be performed electronically via the conference web site.

<http://congress.cimne.upc.es/complas05>