

# Complas X

2-4 September 2009 Barcelona, Spain

## Conference Secretariat

International Center for Numerical Methods  
in Engineering (CIMNE)

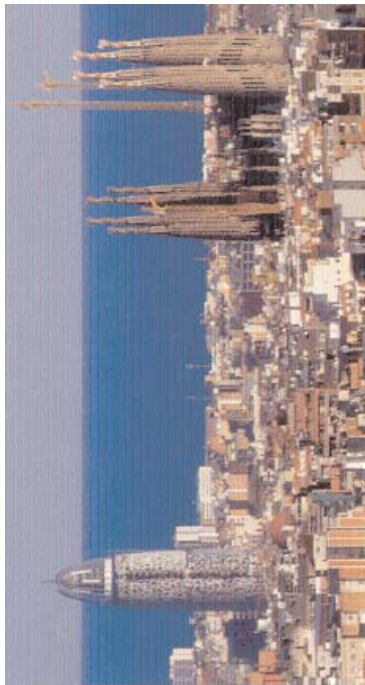
Edificio C1, Campus Norte UPC, Gran Capitán s/n,

08034 Barcelona, Spain

Phone +34 934017441 Fax +34 934016517

complas@cimne.upc.edu

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



The old and the new in Barcelona

## An ECCOMAS Thematic Conference

COMPLAS X is one of the Thematic Conferences of the European Community in Computational Methods in Applied Sciences (ECCOMAS) [www.eccomas.org](http://www.eccomas.org)  
COMPLAS X is also an IACM Special Interest Conference.  
More information about IACM on: [www.iacm.info](http://www.iacm.info)

## Location

The conference will take place at the Technical University of Catalonia (UPC), Vertex Building, Plaza Eusebi Güell 6, 08034 Barcelona, Spain

## Registration Fees

The registration fees, including social events, with early registration applicable if received before **15 May 2009** are:

	Early	Late
Delegates	490 €	570 €
Students	280 €	300 €

ECCOMAS and IACM members will have a 5% reduction on the delegates fees.

The delegate 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.

## 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 (UPC), Barcelona, Spain



# Complas X

## X International Conference on Computational Plasticity Fundamentals and Applications

2-4 September 2009 Barcelona, Spain

An IACM Special Interest Conference



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

## Objectives

Previous meetings in the COMPLAS series were held in Barcelona in 1987, 1989, 1992, 1995, 1997, 2000 2003, 2005 and 2007. COMPLAS 2007 attracted some 400 participants. COMPLAS X in 2009 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 X 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  
C. Andrade, Spain  
F. Armero, USA  
A. H. Barbat, Spain  
K.-J. Bathe, USA  
J. L. Batoz, France  
Z. Bazant, USA  
T. Belytschko, USA  
R. de Borst, The Netherlands  
M. Boyce, USA  
R.I. Borja, USA  
M. Cervera, Spain  
J.L. Chenot, France  
F. Chinesta, France  
M. Doblaré, Spain  
E. Dvorkin, Argentina  
R. Feijoo, Brazil  
A. Gens, Spain  
M. Geradin, Italy  
J. M. Goicolea, Spain  
G. Holzzapfel, Austria  
A. Huerta, Spain  
A. Ibrahimbegovic, France  
M. Kleiber, Poland  
B. Kröplin, Germany  
P. Ladevèze, France  
W.K. Liu, USA  
T. Laursen, USA  
G. Maier, Italy  
H. Mang, Austria  
A. Marí, Spain  
C. Miehe, Germany  
J. Miquel, Spain  
N. Moës, France  
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, South Africa  
P. Roca, Spain  
T. Rodic, Slovenia  
A. Rodríguez-Ferran, Spain  
K. Runesson, Sweden  
B. Schrefler, Italy  
E. Stein, Germany  
S.W. Sloan, Australia  
R.L. Taylor, USA  
V. Tvergaard, Denmark  
N.E. Wiberg, Sweden  
K. Willam, USA  
P. Wriggers, Germany  
G. Yagawa, Japan  
O. C. Zienkiewicz, UK  
N. Zabarás, USA

## Important Dates

- Deadline for presenting one page abstract **15 December 2008**  
Acceptance of the contributions and instructions for writing an extended abstract **16 January 2009**  
Deadline for submitting an extended abstract and early payment **15 May 2009**  
Booking of hotel accommodation **ASAP**

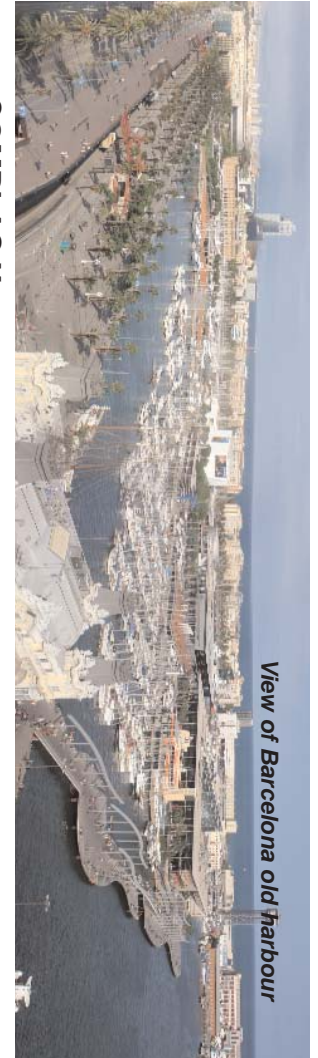
## COMPLAS X

Barcelona, 2-4 September 2009

## How to register and submit contributions

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

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



View of Barcelona old harbour

