



Conference

<http://www.wccm-eccm-ecfd2014.org/frontal/default.asp>

The International Association for Computational Mechanics (IACM) and the European Community on Computational Methods in Applied Sciences (ECCOMAS) announce the joint organization of:

5th. European Conference
on Computational
Mechanics (ECCM V)

6th. European Conference
on Computational Fluid
Dynamics (ECFD VI)

Conference Chairmen

Javier Oliver (ECCM V)

Eugenio Oñate (*WCCM XI*)

Antonio Huerta (ECDF VI)

Venue

Palace of Congresses Catalonia
<http://www.pcongresos.com/en/mapa.php>

MMCM5

Contact Information

Enquiry about the abstract and manuscript submission for the MCM5Symposium,

Please contact:
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WCCM XI - ECCM V - ECFD VI
BARCELONA 2014

11th. World Congress
on Computational Mechanics

July 20-25, 2014

Barcelona – Spain



International Symposium on
**Multiscale and
Multiphysics Modelling
for Complex Materials**

MMCM5

deadline for abstracts:
NOVEMBER 29, 2013
deadline for final abstract
submission and payment:
FEBRUARY 28, 2014

MMCM5 Description

This symposium will provide a forum to present and debate multiscale and multiphysics methodologies for studying the behaviour of complex materials.

The goal is to bring together researchers (engineers, physicists, mathematicians) specializing in multiscale and multiphysics modelling and simulation of complex materials. Mechanics will play a central role, but the focus will be set on those problems where mechanics is highly coupled with other concurrent physical phenomena. In this framework, the interest and suitability of multiscale strategies will be highlighted.

This symposium is intended to be a computational-oriented follow-up of the successful MMCM symposia previously held in *Vancouver* (2006), *Berlin* (2009), *Paris* (2010) and *Wien* (2012). The focus will be set on computational issues, while still highlighting the underlying conceptual and theoretical basis.

Coordinators

Patrizia Trovalusci

Sapienza – University of Rome, Italy

Tomasz Sadowski

Lublin University of Technology, Poland

Rene de Borst

University of Glasgow, United Kingdom

Bernhard A. Schrefler

University of Padua, Italy

Invited key-note speakers

Jacob Fish

Columbia University (NY), USA

Samuel Forest

École des Mines, Paris Tech, France

Somnath Ghosh

Johns Hopkins University, Baltimore (MD) – USA

Martin Ostoja-Starzewski

University of Illinois, Urbana-Champaign (IL) – USA

MMCM5 Topics

With these aims in mind, contributions from all aspects of engineering applications, with particular attention to structural engineering applications, will be considered. Topics of applications will include (but not be limited to):

Materials with micro(/nano)–structure

- Composites, Fibre–Reinforced, Laminated
- Granular, Masonry–Like, Cementitious
- Biomaterials
- Random Materials
- Shape–Memory Alloys

Complex material behaviour

- Damage, Fracture, Defects, Cracks
- Non–Classical Continua, Multiphysics
- Poromechanics, Fluid Flow
- Thermomechanics, Viscosity
- Randomness and Fractals

Non–standard/Non–local continuous formulation

- Micromorphic continua
- Multifield, Configurational/Material
- Forces descriptions
- Non–local models
- Dispersive Wave Propagation

Computational Methods

- Coupled Discrete–Continuum Methods
- Homogenization Methods
- Computational Multiscale Methods
- Non–standard Methods for Generalized Continua
- Molecular, Dislocation Dynamics
- Object–oriented, Adaptive, Homogenization

Organizing Committee

Patrizia Trovalusci

Annamaria Pau

Sapienza – University of Rome, Italy

ECCOMASS 2012 Call for Papers

Prospective authors are kindly invited to electronically submit an abstract to the mini-symposium : <http://www.wccm-eccm-ecfd2014.org/admin/Files/FileAbstract/a120.pdf> by **November 29, 2013.**

Format instructions

Format templates are available here:

[http://www.wccm-eccm-](http://www.wccm-eccm-ecfd2014.org/frontal/Instructions.asp)

[ecfd2014.org/frontal/Instructions.asp](http://www.wccm-eccm-ecfd2014.org/frontal/Instructions.asp). Authors are asked to send the files in .pdf format (mandatory).

Acknowledgement of receipt

The receipt of the submission will be acknowledged automatically by email.

Making changes

To make any change in the abstract submitted you have to login as the registered participant.

To avoid double registration, please do not create a new record.

Acceptance notification

Preliminary acceptance of the contribution will be communicated to the corresponding author by **January 31, 2014.**

Final acceptance

The final Abstract in format for publication will be required by **February 28th, 2014.**

Please note that final acceptance of papers for presentation is conditional to receiving the final Abstract and the payment of the presenting author's congress registration fee during the advance period (by February 28th, 2014).

Only one presentation per delegate is allowed in the Conference