**ECCOMAS and IACM support**
X-DMS 2015 is one of the Thematic conferences of the European Community on Computational Methods in Applied Sciences (ECCOMAS): www.eccomas.org

X-DMS 2015 is also a Special Interest Conference of the International Association for Computational Mechanics (IACM): www.iacm.info

**About Ferrara**
Lying in the middle of the Po Valley, Ferrara still has the atmosphere of the past, which blends in harmoniously with the lively atmosphere of the present. Ferrara's most famous image is certainly that of its grand Renaissance, the age of splendour of the Estense court, which has left indelible signs everywhere: in the colossal Addizione Erculea project, in the impressive pictorial cycles belonging to the Quattrocento and Cinquecento and in the Last Judgement by Bastianino. From 1995 on, UNESCO has included the historical centre of Ferrara in the list of World Cultural Heritage as a wonderful example of a town planned in the Renaissance and still keeping its historical centre intact.

The town planning criteria expressed in Ferrara had a deep influence on the progress of town planning in the following centuries (http://www.ferraraterraeacqua.it/en).

**Registration Fees**
Registration fees are in Euros. Early registration applicable if paid before June 1, 2015.

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<th>Early</th>
<th>Late</th>
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<tr>
<td>Delegates</td>
<td>550 €</td>
<td>650 €</td>
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<td>Students</td>
<td>320 €</td>
<td>400 €</td>
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The fees will include conference proceedings, attendance to all scientific sessions and coffee breaks. Delegate fee includes conference social dinner.

**Supporting Organizations**
- Università di Ferrara
- GIMC
- Politecnico di Torino
- SIMAI
- ECCOMAS
- GNFM
- AIMETA
- IACM
- MOX - Politecnico di Milano

http://x-dms2015.sciencesconf.org
Objectives

The last decade has seen an increased interest of the computational mechanics and numerical analysis communities in expanding classical discretization methods, like finite elements. A variety of techniques aimed at improving the overall computational efficiency by simplifying the discretization of the domains and accounting for special features of the problem directly in the approximation space have been developed. These efforts have been very fruitful, with a vast variety of new ideas being introduced and consolidated by new research results. A partial and non-exhaustive list of all these methods may include the partition of unity methods (Meshfree, XFEM/GFEM to recall the most known), local/global non-intrusive coupling and patch methods, fictitious domain methods, strong discontinuity approaches for fracture mechanics and special treatments of interfaces. The common denominator of all these techniques is to account for features of the solution by suitably modifying the discretization procedure and/or the approximation space. X-Phase continues and replaces the successful X-FEM conference cycle and aims at including a wider variety of methodologies coming from different areas of computational mechanics and numerical analysis. This new conference cycle intends to gather all scientists working on these techniques so to foster the exchange of ideas among different approaches and discuss about open issues and their possible solution.

Conference Topics

The conference topics include fundamental research, applications and computational studies devoted to the progress of extended and specialized discretization methods such as, but not limited to:

- Partition of Unity methods (Meshfree, XFEM/GFEM);
- Patch Methods;
- Fictitious Domain Methods;
- Strong Discontinuity Approaches (SDA);
- Local/Global Non-Intrusive Coupling;
- Finite Cell Methods;
- Multiscale Discretization;
- Special techniques for static and evolving interfaces;
- Crossover approaches, such as integration of PUFEM with isogeometric method.

Important dates

The conference organization allows for both open scientific sessions and minisymposia. The schedule and deadlines are as follows:

- Opening of minisymposia proposals: September 1, 2014
- Deadline for minisymposia proposals: November 2, 2014
- Minisymposia acceptance notification: December 23, 2014
- Opening of abstract submissions: January 1, 2015
- Deadline for abstract submissions: March 29, 2015
- Notification of acceptance of abstracts: April 30, 2015

Location

The conference will take place in the historical setting of Palazzo Tassoni Estense, owned by the University of Ferrara. Address: Via della Ghiera, 36 - 44121 Ferrara, Italy

Organizing Committee

Giulio Ventura (Chair), Politecnico di Torino
Elena Benvenuti (Chair), University of Ferrara
Antonio Tralli (Honorary Chair), University of Ferrara
Loredana Cattona, University of Catania
Mauro Corrado, Politecnico di Torino
Alessio Fumagalli, Politecnico di Milano
Stefano Mariani, Politecnico di Milano
Marco Paggi, Institute for Advanced Studies, Lucca
Anna Pandolfi, Politecnico di Milano
Anna Scotti, Politecnico di Milano
CFR, Consorzio Ferrara Ricerche

Scientific Committee

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Alain Combescure, INSA de Lyon, France
Massimo Cuomo, University of Catania, Italy
René De Borst, University of Glasgow, U.K.
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Jacob Fish, Columbia University in the City of New York, USA
Luca Formaggia, Politecnico di Milano, Italy
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Yves Renard, INSA de Lyon, France
Arnold Reusken, RWTH Aachen University, Germany
Angelo Simone, TU Delft, The Netherlands
Natarajan Sukumar, University of California Davis, USA
Haim Waisman, Columbia University in the city of New York, USA
Wolfgang Wall, Technische Universität München, Germany
Gabriel Wittum, Goethe University Frankfurt, Germany
Julien Yvonnet, Université Paris-Est, France
Paolo Zunino, Politecnico di Milano, Italy and Univ. of Pittsburgh, USA

How to register and submit contributions

Submissions of contributions and conference registration should be performed electronically via the conference website.

http://x-dms2015.blow.sciencesconf.org