

PLENARY SPEAKERS:

Carmelo Giacovazzo (IC-CNR Bari),
Ute Kolb (U. Mainz), Piero Macchi (U.
Bern), Kiyoshi Nagai (MRC-LMB
Cambridge)

OPENING CERIMONY:

June 26th Sala dei Notari

VENUE:

Università degli Studi di Perugia
Palazzo Murena, Piazza Università

WITH THE PATRONAGE OF:



IMPORTANT DEADLINES

31 March 2017

Abstract submission

31 March 2017

Request of Grants

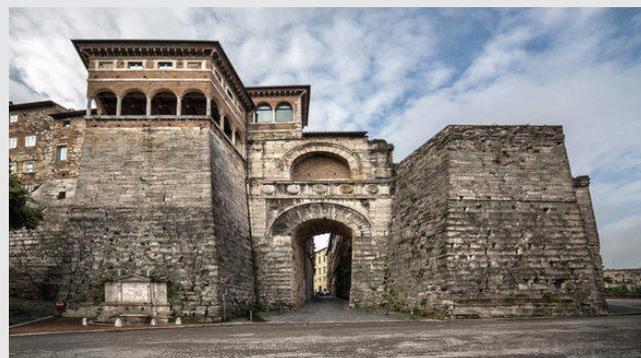
31 March 2017

Early Bird Registration

30 April 2017

Grants allocation and Abstracts approval

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**XLVI ANNUAL
MEETING OF AIC**

Perugia 26-29 June 2017



**50TH ANNIVERSARY OF AIC
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website:

<http://www.cristallografia.org/congresso2017>

MICROSYMPOSIA

MS1. Advances in theoretical and experimental methods in crystallography

Giovanni Luca Cascarano (IC - CNR - Bari); Maurizio Polentarutti (Elettra -Trieste)

Aim of this Microsymposium is to illustrate new methods and algorithms as well as applications of up-to-date technologies devoted to the solution and analysis of crystal structures.

Michele Cianci (U. Politecnica delle Marche): "Theory and methods in microcrystallography of biological macromolecules"

Marco Milanese (U. Piemonte Orientale): "Analysis of X-Ray Powder Diffraction data by a statistical multivariate approach"

MS2. Crystallography for cutting-edge mineral sciences

Roberta Oberli (IGG - CNR - Pavia)

The present impact of structure-based approaches on disciplines where minerals and their analogues play a crucial role will be addressed according to different perspectives and expertise. A number of speakers will be invited, but contributions and discussion on both methodologies and results are solicited and most welcome both for the oral and the poster session.

Rossella Arletti (U. Torino): "High-pressure nano-confinement in zeolites: innovative materials from the mineral science know-how"

Donato Belmonte (U. Genova): "Unraveling chemical complexity in solid solutions: the interplay between computational and experimental investigation"

Matteo Alvaro (U. Pavia): "Crystallographic investigation of mineral inclusions: a powerful tool to unravel geological processes"

Boriana Mihailova (U. Amburgo): "Crystal chemistry via phonon modes of complex hydrous silicates: amphiboles and tourmalines"

MS3. Bio-oriented / bio-inspired structural chemistry and crystal growth

Marco Crisma (ICB - CNR - Padova)

This MS welcomes contributions from structural chemistry aimed at understanding, targeting, or mimicking phenomena and systems, broadly related to a variety of areas of life sciences. Examples include, but are not limited to, natural molecules and analogs thereof, synthetic receptors and devices, foldamers, drug polymorphism and bioavailability.

Claudia Tomasini (U. Bologna): "Design, synthesis and conformational analysis of pseudopeptide foldamers"

Lucia Maini (U. Bologna): "Crystal forms of Active Pharmaceutical Ingredients: new perspectives for new properties"

MS4. Chasing protein structure for health

Martino Bolognesi (U. Milano)

The Microsymposium will present the methods/results of current crystallographic research focussed on proteins and macromolecular complexes that bear specific meanings for human health and/or therapy.

Adriana Erica Miele (U. Roma La Sapienza - UCBL U. Claude Bernard Lyon 1): "Integrative structural biology in molecular parasitology: new strategies for old diseases"

Marina Mapelli (European Institute of Onchology - Milano): "NuMA:LGN hetero-hexamers cluster active Dynein motors at the cortex to promote planar cell divisions"

MS5. From APIs to nanocarriers to target macromolecules: a multiscale and multitechnique approach to modern medicine

Rocco Caliendo (IC - CNR - Bari)

The MS intends to collect contributions spanning from molecules (API) and materials (nanocarriers) to macromolecules employing different techniques (single crystal and powder diffraction, small angle scattering, PDF, EXAFS) and also considering modern statistical approaches to the analysis of multi-techniques experiments. On one hand, the multitechnique approach is more and more diffusing into the drug discovery process. On the other hand, the simple "manual" correlation of multi-technique data is not able to fully exploit the potential of the approach and statistical methods can fill the gap and become a useful and common tool for the analysis of XRD-related experimental data.

Eric Di Luccio (Kyungpook National University): "Chromatin remodeling by histone methylations and epigenetic therapeutics as new weapons against cancer"

Gerhard Klebe (U. Marburg): "Fragment-based Lead Discovery in Drug Design: A Challenge for Crystallography"

MS6. Structure-property relationships in porous 3D crystalline materials

Andrea Rossin (ICCOM - CNR - Firenze)

This MS focuses on the relationships between crystal structure (topology) and physico-chemical properties of Metal-Organic Frameworks (MOFs), Covalent Organic Frameworks (COFs), zeolites and porous geo-materials. Contributions describing diverse practical applications (i.e. host adsorption/exchange, luminescence, magnetism, catalysis, etc...) and their relationship with the 3D lattice topology are also welcome.

Lars Öhrström (Chalmers University of Technology - Göteborg): "Design, Describe, Disseminate: The use of Network Topology in MOFs and Related Materials"

David Farrusseng (CNRS - IRCELYON - Lyon): "Upscale studies of MOFs for industrial applications - impacts on properties"

MS7. Crystal Defects in the Spotlight: Nano and Disordered Materials

Antonella Guagliardi (IC - CNR - Como)

This MS wants to focus on crystal defectiveness and structural disorder in materials of high technological interest. Defects spanning from size-induced effects, local inhomogeneities and nanodomains, correlated static or dynamic disorder and any other kind of defect breaking the long-range crystal periodicity represent an exciting challenging frontier for Crystallography. The MS welcomes contributions dealing with the many aspects related to the topic (materials structural and functional properties, unconventional characterization methods, multi-technique analysis).

Maksym Kovalenko (ETH): "Nanocrystals of Cesium Lead Halide Perovskites (CsPbX₃): Highly Defected yet Defect-Tolerant and Bright Emitters"

Marco Scavini (U. Milano): "Applications of Pair Distribution Function analysis to defective oxides"

MS8. Crystallography for Art and Art in Crystallography

Simona Quartieri (U. Messina)

The symposium "Crystallography for Art and Art in Crystallography" is intended as a forum for discussing the contributions of the crystallographic methods in the scientific study of artworks and ancient materials, and for highlighting the links among crystallography, symmetry and art.

Brunetto Brunetti (U. Perugia): "Nature and alterations of inorganic yellow pigments in ancient and modern art"

Gilberto Artioli (U. Padova): "Crystallography of Ancient Materials: beyond Materiality"

Bernardo Cesare (U. Padova): "Beauty under the Microscope: the Art of Crystals"

MS9. In situ and in operando crystallography: getting insights into the properties of materials and their response to external stimuli

Serena Chiara Tarantino (U. Pavia)

The microsymposium will present multiple facets of non-ambient crystallography resulting from a broad array of techniques that help to explore materials, and elucidate processes and structural phenomena under in situ and in operando conditions. The microsymposium welcomes contributions dealing with structural studies under different crystal environments, including temperatures and pressures other than ambient, gaseous environments, electrical or magnetic fields, and with the development of experimental setups and devices.

Annalisa Martucci (U. Ferrara): "Sorption and Desorption from water of emerging pollutants in high silica zeolites: study of temperature effect by a combined In Situ synchrotron X-ray powder diffraction and chromatographic techniques"

Alessandro Minguzzi (U. Milano): "Operando (photo)electrochemical X-ray absorption spectroscopy"

Software Fayre

Benedetta Carrozzini (IC - CNR - Bari): "The SIR program"

Federica Bertolotti (U. Aarhus): "DEBUSSY 2.0 - A powerful tool for characterizing structure, microstructure and morphology of nanomaterials through the Debye Scattering Equation"

Aurelia Falcicchio (IC - CNR - Bari): "EXPO2014: a software for solving crystal structures by powder diffraction data"

Rocco Caliendo (IC - CNR - Bari): "RootProf: a general-purpose software for multivariate analysis of unidimensional profiles"

Ross John Angel (U. Padova): "EosFit: a program suite for Equation of State fitting and calculations"

Nicola Corriero (IC - CNR - Bari): "QualX2.0: a software for qualitative phase analysis from powder diffraction data"