XXII Congress and General Assembly

International Union of Crystallography

Madrid 22-30 August 2011

Second Announcement

http://www.iucr2011madrid.es
Welcome

The triennial meetings of the International Union of Crystallography represent a highlight for crystallographers worldwide. In August 2011 we have the opportunity to meet again in Madrid for the XXII International Congress and General Assembly of the IUCr that is being organized by our Spanish colleagues.

As you can see from this circular, the International Program Committee has put together a rich scientific program of Microsymposia and Keynote Lectures that in an excellent way illustrates all the new achievements of crystallography in its many facets.

Another important component of the meeting is the General Assembly where the delegates from 50 IUCr member countries get together to review the work of the IUCr, elect the members of the Executive Committee and Commissions and decide on the venue for the 2017 Congress.

I have had the opportunity to meet with the Spanish organizers and visit the beautiful conference venue in Madrid. From these experiences I can tell you that our Spanish hosts are doing everything to make the Congress a success and make you feel at home in Madrid, so you can enjoy both the science at the Congress and the charm and beauty of the city.

So everything is in place for a successful IUCr Congress, and I hope that you will accept this invitation from our Spanish colleagues, so I can look forward to seeing many crystallographers from all parts of the world in Madrid next August.

Sine Larsen
President
International Union of Crystallography

The Spanish Crystallographic Community warmly invites you to participate in the XXII Congress and General Assembly of the International Union of Crystallography (IUCr) to be held in Madrid, Spain, in August 2011. The Local Organizing Committee together with the International Program Committee, are working hard to offer a scientific program of the highest quality, aimed at showing the latest developments and topics in the field of one of the most interdisciplinary sciences that links together frontier areas of research.

With an attractive and weighty Scientific Program and taking into account all the different research interests, the timetable has been organized trying to avoid any overlap in topics, making sure that every attendant can make the most of their participation.

Crystallography plays a key role for the development of many important scientific fields, from Mineralogy up to Chemistry, Physics, Material Sciences, Nanotechnology, Biochemistry, Biology and Biomedicine. No scientist is a stranger to the crystallographic forum.

Learning about new trends in all these scientific areas surrounded by Madrid’s friendly and cosmopolitan atmosphere, a European city privileged with its cultural and historical heritage, will be an unforgettable experience.

We look forward to welcoming you in Madrid!

Enrique Gutiérrez-Puebla
Chairperson
XXII IUCr Madrid 2011 Congress
XXII IUCr CONGRESS AND GENERAL ASSEMBLY
Madrid 22-30 August 2011

Important dates

- January 15, 2011: Opening of abstracts submission
- March 15, 2011: Deadline for bursary applications
- April 15, 2011: Deadline for abstracts submission
- May 15, 2011: Deadline for “Early Bird” registration
- June 15, 2011: Deadline for payment registration fees for validation and publication of submitted abstracts.

The organization strongly recommends communicating your interest in exhibition, hotel & tours reservations as follows:
- By June 1, 2011: For hotel & tours registration.

Timetable

Monday, August 22
Registration Opens (11:00)
Pre-Congress Workshops
Opening Ceremony (18:30-19:30)
Ewald Prize Lecture (19:30-20:30)
Welcome Reception (20:30-22:00)

Tuesday, August 23
Scientific Session
Exhibition
Evening: IUCr General Assembly

Wednesday, August 24
Scientific Session
Exhibition
Evening: IUCr General Assembly

Thursday, August 25
Scientific Session
Exhibition
Evening: Cultural Activity

Friday, August 26
Scientific Session
Exhibition
Evening: Congress Dinner

Saturday, August 27
Scientific Session
Exhibition
Evening: IUCr General Assembly

Sunday, August 28
Scientific Session
Exhibition
Evening: IUCr General Assembly

Monday, August 29
Scientific Session
Closing Ceremony

Tuesday, August 30
Congress Tours

Committees

Honorary Committee

Presidency:
The King and Queen of Spain
Members:
The Minister of Science and Innovation
The President of the Community of Madrid
The Mayor of the City of Madrid
The President of the Spanish National Research Council (CSIC)
The Rector of the University of Alcalá
The Rector of the University Complutense of Madrid
The Rector of the Autonomous University of Madrid

International Program Committee

Enrique Gutiérrez-Puebla (Spain) Chairperson
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Mois Aroyo (Spain)
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Riccardo Baggio (Argentina)
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Tayur N. Guru Row (India)
Keijo Hamalainen (Finland)
Lynne Howell (Canada)
Reiko Kuroda (Japan)
Martin Martinez-Ripoll (Spain)
Norberto Masciacci (Italy)
Luigi Nassimbeni (South Africa)
Sakura Pascarelli (France)
Harry Powell (UK)
Xiao-Dong Su (China)
Jill Trewhella (Australia)
Pamela Whiffen (Canada)
Jian-Min Zhu (USA)
James F. Britten (Canada) Ex-officio
Yasuhiko Fuji (Japan) Ex-officio
Chris Gilmore (UK) EC Representative

IUCr Executive Committee

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Immediate Past President:
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Local Organizing Committee

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Technical Secretariat

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Scientific program

Please note that the scientific program, elaborated by the International Program Committee and approved by the IUCr Executive Committee, is still subject to the acceptance of some of the invited speakers and Chairs. Please refer to the website for the revised information.

Tuesday, August 23, 2011

09:00 - 09:50  PL 1  Thomas A. Steitz
Understanding the Structural Basis of Ribosome Function
Chair: Sine Larsen

09:50 - 10:15  Coffee Break

10:15 - 12:50  MS 1  Hot Structures in Biology I
Chairs: Poul Nissen, Guillermo Montoya
MS 2  Hybrid Methods: the EM-Crystallography Interface
Chairs: Eva Nogales, Jorge Navazza
MS 3  Polymer and Gel Structures: Arriving at a Structural Model
Chairs: Parthasarathi Dasdhar, Beatriz Escudier Gil
MS 4  Industrial Applications of SAXS and SANS
Chairs: Robert Kort, Aldo F. Craievich
MS 5  Non-Ambient Powder Diffraction
Chairs: Dave Billing, Tiziana Botffa-Ballaran
MS 6  Crystal Structure Prediction: Practice and Applications
Chairs: Sally L. Price, John Kendrick
MS 7  Coherent Diffraction and Imaging
Chairs: Vincent Favre-Nicolin, John Rodenburg

12:50 - 15:00  Lunch and Poster Session

15:00 - 17:35  MS 8  Large Biological Assemblies
Chairs: Andrew Leslie, Keiichi Namba
MS 9  Topological Correlations and Crystal Structure Interconnections
Chairs: Jean-Guillaume Eon, Hans-Ioachim Klein
MS 10  Determination of Ab-initio Crystal Structures from Powder Diffraction and their Applications in Pharmaceutical Industry
Chairs: Fabia Gozzo, Maryjane Tremayne
MS 11  Standardization, Validation, and Automation in Modern Biological Small-Angle Scattering
Chairs: Javier Pérez, Mario de Oliveira Neto
MS 12  Non-Covalent Interactions in Molecular Crystals and Biomolecular Systems under Pressure
Chairs: Simon Parsons, Kamil Dzulebek
MS 13  Automation of Data Collection and Remote Control of Experiments
Chairs: Olof Svensson, Masaki Yamamoto
MS 14  Biomineralization and Biomimetic Materials
Chairs: Dino Aquilano, Jaime Gómez-Morales

17:40 - 18:30  KN 1  Tomohide Tsukihara
Large Macromolecular Assemblies
Chair: Yasushi Kai
KN 2  Ian Robinson
Coherent X-Ray Diffraction
Chair: Janos Kirz
KN 3  Michael O’Keefe
Topological Characterization of Coordination Networks & Metal-Organic Frameworks
Chair: Davide Proserpio

18:30 - 19:30  Poster Session

Scientific program

Wednesday, August 24, 2011

09:00 - 09:50  KN 4  Peter Kwong
Crystallography and the Design of An Effective HIV-1 Vaccine
Chair: David Stuart

09:50 - 10:15  Coffee Break

10:15 - 12:50  MS 15  Nucleosome Processing and Epigenetics
Chairs: Daniela Rhodes, K. Morikawa
MS 16  Crystallography in Disease and Therapy
Chairs: Hugo L. Monaco, Colin Groom
MS 17  Synthons: from Small to Macromolecules
Chairs: Pinak Chakrabarti, Catalina Ruiz-Pérez
MS 18  Powder Diffraction at the Nanoscale
Chairs: Evgenia Guagliardi, Yuri Andreev
MS 19  Synthesis, Structure and Properties of Novel Materials at High Pressure
Chairs: Olgica Degtyaireva, Valentín Garcia Baona
MS 20  Beyond Space-Group Symmetry in Periodic Structures
Chair: Marco Pasero, Bernd Souvignier

12:50 - 15:00  Lunch and Poster Session

15:00 - 17:35  MS 21  Surfaces & Interfaces
Chairs: Ulrich Pietsch, Maria Varela del Arco
MS 22  Cell Signalling and Protein-Protein Interactions
Chairs: Michael Parker, M.V. Hour
MS 23  Difficult Phasing and Difficult Structures
Chairs: Phil Evans, Manfred Weiss
MS 24  New Challenges in Crystal Engineering: Correlating Structure and Properties
Chairs: Piero Sozzani, Alicia Beatty
MS 25  Crystallography of Materials with Exchange, Sequestration and Storage Properties
Chairs: Thomas Abreich-Schmitt, Elena Bonacconzi
MS 26  SAXS/SANS, Total Scattering and the Nanostructure Problem
Chairs: Simon Billing, Michael V. Adroiev
MS 27  Developments and Directions for Crystallographic Databases
Chairs: Saeed Rezaei, John Westbrook
MS 28  Wide Band Semiconductor and Other Crystals Used in Optoelectronics
Chairs: Eva Talkin, Enrique Caleja

17:40 - 18:30  KN 7  Eva Nogales
EM, Hybrid Methods
Chair: Michael Rossmann

18:35 - 19:25  PL 2  Venkatraman Ramakrishnan
Title to be confirmed
Chair: Ted Baker
<table>
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<th>Thursday, August 25, 2011</th>
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| 09:00 - 09:50 | KN 10 Ian Wilson  
Exploration of Protein Structure Universe with Structural Genomics  
Chair: Helen Berman  
KN 11 Yaroslav Filinchuk  
Energy Related Materials: Borohydrides  
Chair: Bjorn Hauback  
KN 12 Alessia Bacchi  
Supramolecular Chemistry  
Chair: Guy Orpen |
| 09:50 - 10:15 | Coffee Break |
| 10:15 - 12:50 | MS 29 Viruses and Viral Proteins  
Chairs: Fasseli Coulibaly, Ying-Fang Liu  
MS 30 Diffuse Scattering in Partially Ordered/Disordered Systems  
Chairs: Thomas Weber, Ernesto Estevez Ramos  
MS 31 Structural Implications in Catalytic Processes  
Chairs: Arnold Rheingold, Jorge Rodriguez-Navarro  
MS 32 Crystallography in Industrial Process Control  
Chairs: Jim Kostak, Nikki Scarlett  
MS 33 New Sources (Neutrons, X-Rays, XFEL)  
Chairs: Edgar F. Weckert, Christian Veitler  
MS 34 Descriptors of Electronic Structure and Chemical Bonding  
Chairs: Luis J. Farrugia, Ángel Martin Pendás  
MS 35 The Growth and Morphology of Crystals  
Chairs: Arkady Gilkin, Sol López-Andrés |
| 12:50 - 15:00 | Lunch and Poster Session |
| 15:00 - 17:35 | MS 36 Understanding Bacterial Pathogenesis  
Chairs: Jijie Chai, Dirk Heinz  
MS 37 X-Ray Lasers and Other New Frontiers in Synchrotron Applications to Structural Science  
Chairs: Soichi Wakatsuki, Janet L. Smith  
MS 38 Fabrication and Macroscopic Properties of Flexible Frameworks  
Chair: Michael Hardie, to be confirmed  
MS 39 Energy-Related Materials  
Chairs: William I.F. David, Rosa Palacin  
MS 40 Pressure-Induced Phase Transitions  
Chairs: Vadim Brazhkim, Karen Friesen  
MS 41 Advanced Approaches in Charge Density Analysis and Derived Properties  
Chairs: Nezhsa Brumovska, Christian Jelsch  
MS 42 XAFS Studies in Biology Coupled to Crystallography  
Chairs: Farideh Jalilehvand, Sofía Díez-Moreno |
| 17:40 - 18:30 | KN 13 Juan Hernando  
Bacterial Pathogenicity and Peptidoglycan Degradation Machines  
Chair: Ritu Bhatia  
KN 14 John Spongo  
Ultrafast Crystallography with X-Ray Free Electron Lasers  
Chair: Keith Hodgson  
KN 15 Len J. Barbour  
Porous Materials. Structure of Solid Gas Materials  
Chair: S. Natarajan |
| 18:30 - 19:30 | Poster Session |

<table>
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<th>Friday, August 26, 2011</th>
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| 09:00 - 09:50 | KN 16 Gerard Kleywegt  
Validation and Error in Protein Structures  
Chair: Gert Verdonk  
KN 17 Helmut Coefen  
Prenucleation Clusters and Crystallization Control by Additives  
Chair: Manuel Prieto  
KN 18 Steve Pennycook  
Atomic Resolution Real-Space Imaging and Aberration Corrected Electron Microscopy  
Chair: Carlos Otero |
| 09:50 - 10:15 | Coffee Break |
| 10:15 - 12:50 | MS 43 Validation, Error Detection and Fraud Prevention  
Chairs: Eleanor Dodson, Ian Bruno  
MS 44 Quantitative Real Space Electron Imaging  
Chairs: Sandra Van Aert, Angel Landa  
MS 45 Dynamical Structural Science  
Chairs: Pance Naumov, Eric Collet  
MS 46 Powder Diffraction Methods in Archaeometry  
Chairs: Gilberto Arizti, Petr Bezicka  
MS 47 Advances in High Pressure Techniques and Instrumentation  
Chair: Chris Tulk, Giuliana Aquilanti  
MS 48 Electron Momentum and Spin Densities in Correlated Electron Systems  
Chairs: Bernardo Barbieri, Mahtasia Ito  
MS 49 Crystal Growth and Interface Phenomena at Nanoscale  
Chairs: Katsuo Tsukamoto, Jim De Yoreo |
| 12:50 - 15:00 | Lunch and Poster Session |
| 15:00 - 17:35 | MS 50 Structural Biology of the Immune System  
Chairs: Dinakar M. Salunke, Yvonne Jones  
MS 51 Complementary Biophysical Methods: Adding Value to Protein Structures  
Chairs: Nathan Cowieson, Dorothy Beckett  
MS 52 Graphitic Materials  
Chairs: Kazutomo Suenaga, Pascale Launois  
MS 53 High-Throughput Crystallization and Polymorphic Search in Pharmaceuticals  
Chairs: Ulrich Grieser, Susan M. Reutzel-Edens  
MS 54 Minerals as Advanced Materials  
Chairs: Volker Kahlenberg, Claudia Weidenthaler  
MS 55 Structure and Dynamics by Inelastic Scattering  
Chairs: Alfred Baron, Helmut Schöber  
MS 56 Spectroscopic Approaches (XAFS, NMR, ...) in Crystallography  
Chairs: M. Carmen Asensio, Carlo Castellano |
| 17:40 - 18:30 | KN 19 Sunney Xie  
Single-Molecule Methods  
Chair: Ignacio Tinoco  
KN 20 Emil Makovicky  
From Plane Groups to Quasi-lattices: Hispano-Islamic Ornamental Art of the Alhambra, Cordoba and Sevilla  
Chair: Stephen Hyde  
KN 21 Bo Hansen  
Materials Crystallography  
Chair: Carlo Gatti |
Saturday, August 27, 2011

09:00 - 09:50  KN 22 George Sheldrick
The SHELX Approach to Experimental Phasing of Macromolecules
Chair: David Brown
KN 23 Ute Kolb
Ab-initio Structure Solution of Complex Inorganic, Organic and Mineral Structures
By Automated Electron Diffraction Tomography
Chair: Christian Baerlocher
KN 24 José Elguero
Structural Motifs in Organic Chemistry
Chair: Andre Roodt

09:50 - 10:15  Coffee Break

10:15 - 12:50  MS 57 New Perspectives in Structural Genomics
Cars: Celia Goulding, Shigeyuki Yokoyama

MS 58 New Computational Approaches to Structure Solution and Refinement
Chair: Anastasios Porrakios, Paul Adams

MS 59 Anion Recognition and Temptation in Halogen Bonding
Cars: Venkateswaran R. Pedreddi, Melanie Radermeyer

MS 60 Solid State Reactivity
Cars: Simona Galii, John B. Parise

MS 61 Hot Structures in Chemical Crystallography
Cars: Shie-Ming Peng, Dietmar Salkie

MS 62 Crystallographic Software: the Library Approach
Cars: Ralf Grossen-Kunstleve, Luc Bourhis

MS 63 Quasicrystals and Their Approximants: Structure and Physical Properties
Cars: Hiroyuki Takaakura, N.K. Mulchopadyay

12:50 - 15:00  Lunch and Poster Session

15:00 - 17:35  MS 64 Hot Structures in Biology II
Cars: Tsuyoshi Inoue, Se Won Sunh

MS 65 Atomistic and Electronic Structures of Nanomaterials
Cars: Marek Malac, Quan Li

MS 66 Electric, Magnetic and other Physical Properties of Molecular Crystals
Cars: Sun Gao, Akiko Kobayashi

MS 67 Layered Inorganic Materials and Layered Precursors of 3D Structures
Cars: Benoit Garbou, Heloise Pastore

MS 68 Data Reduction of Area Detector Measurements
Cars: Garry J. McIntyre, to be confirmed

MS 69 Crystallographic Methods and Software for Periodic and Aperiodic Crystals
Cars: Michal Dusek, Lian-Mao Peng

MS 70 Radiation Damage: Consequences and Uses
Cars: Vital I. Yakhrada, Gerd Rosenbaum

17:40 - 18:30  KN 25 Christiane Schaffitzel
Ribose Complexes
Chair: to be confirmed

KN 26 S.V. Krivonichev
Topological Variations and Crystal Structure Interconnections
Chair: Elena Sokolova

KN 27 Samar Hasnain
XAFS Contribution to Protein Structure-Function Investigations
Chair: Brit Hedman

18:35 - 19:25  PL 3 Avelino Corma
Micro and Mesoporous Crystalline Materials: Structural and Composition Implications in Adsorption and Catalysis
Chair: Angeles Monge

Science Program

Sunday, August 28, 2011

09:00 - 09:50  KN 28 Leemor Joshua Tor
Structural Basis of Cell Regulatory Processes
Chair: Maria Armenia Carrondo

KN 29 Elena Bolytrova
Molecular Crystals at High Pressure
Chair: Andrzej Katrusiak

KN 30 Reinhard Neder
Powder Diffraction at the Nanoscale: Structure and Defects
Chair: David Keen

09:50 - 10:15  Coffee Break

10:15 - 12:50  MS 71 Machine of RNA Processing
Chair: Ben Luis, Mark Glover

MS 72 Automated Data Processing and Structural Solution for High Throughput
Crystallography
Chair: Frank Von Delft, Rocc Caciandio

MS 73 Theory and Practice of Hydrogen Bond: An Evergreen Interaction for Molecular Recognition
Chair: Paolo Gili, Andrew Bond

MS 74 Powder Diffraction and Complementary Techniques
Chair: Peter Chupas, Marco Milanesio

MS 75 Liquids, Amorphous and Nanocrystalline Solids at High Pressure
Chair: Chryssafis Saniplou, Stanimir Bonev

MS 76 Density Functional Methods for Electronic Structure Calculations
Chair: Angel Rubio, Risto Nieninen

MS 77 XAFS Instrumentation: Automation, Standardization and Validation of XAFS Experiments
Chair: Christopher Chantler, Kiyotaka Asakura

12:50 - 15:00  Lunch and Poster Session

15:00 - 17:35  MS 78 Transcription and Translation
Chair: Andreas Ulas, Dmitry Vasylyev

MS 79 Electron Diffraction and Crystallography
Chair: Philip Nakashima, Christoph Koch

MS 80 Solid State Photochemistry
Chair: Menahem Kaftry, Pilar Gómez Sal

MS 81 The Crystallography of Functional Inorganic Materials and Their Applications
Chair: Dhananjai Pandey, Yoshihiro Kurouwa

MS 82 Biological Neutron Scattering and Deuteration
Chair: Trevor Forsyth, Joanna Knouge

MS 83 Application of Crystal Structure Information in Chemical Education
Chair: Gary M. Battle, Lourdes Infantes

MS 84 What is order, and how can one describe it? (Which kinds of matter diffract?)
Chair: Marjorie Senechal, Uwe Grimm

17:40 - 18:30  KN 31 Yipong Shi
Membrane Proteins
Chair: Mitchell Guss

KN 32 Ron Martin
Structure of Quasicrystalline Surfaces
Chair: Ron Lishitz

KN 33 A.M. Balagurov
Magnetic Neutron Crystallography - Commensurate and Incommensurate Structures
Chair: E. Podreka

18:30 - 19:30  Poster Session
Monday, August 29, 2011

09:00 - 09:50  KN 34 Janet Newman
  Protein Crystallization
  Chair: Alex McPherson

09:50 - 10:15  Coffee Break

10:15 - 12:50  MS 85 Membrane Protein Structures
  Chairs: So Iwata, María J. Sánchez-Barrena

  MS 86 Challenges of Low-Resolution Crystallography
  Chairs: Joel Susman, Irene Margiolaki

  MS 87 Chirality in the Solid State, from Organic Molecules to Chiral MOF and Helical Materials
  Chairs: Jennifer Swift, Berta Gómez Lor

  MS 88 Crystal Chemistry and Physics of Modulated and Composite Crystals
  Chairs: Jörg Hadermann, Andreas Schönleber

  MS 89 Archiving, Exchange and Retrieval of Scientific Data in the 21st Century
  Chairs: James Hester, David Brown

  MS 90 Hydrogen Bonding: from the Solid State to Solution
  Chairs: Alan Soper, Mark E. Tuckerman

  MS 91 X-Ray Absorption, Diffraction and Imaging in Forensic Science and Ancient Materials
  Chairs: Simona Quintieri, Joaquín García-Ruiz

  MS 92 Crystallography Challenges Biological Targets
  Chairs: Kunio Miki, Abel Moreno

12:50 - 14:20  Lunch

14:25 - 17:00  MS 93 Dissecting Enzyme Mechanisms
  Chairs: Xavier Gomis-Ruth, Andrea Mutvei

  MS 94 Molecular Recognition in the Crystal Bulk and in the Surface: Theory and Applications
  Chairs: Jürg Hülliger, Bart Kahr

  MS 95 Automated Data Processing and Structural Solution for Powder Crystallography
  Chairs: Rosanna Rizzi, Arton Meden

  MS 96 Complementary Use of Neutrons and Photons in Magnetism
  Chairs: Robert Owynek, Valeria Lauter

  MS 97 Web Based Crystallography Teaching: the Use of Modern Communication Methods to Teach Crystallography
  Chairs: Katharine Kantardjeff, Gervas Chapsis

  MS 98 Complex Structure and Frustrated Systems: Simulation and Experiments
  Chairs: Olivier Perez, Guido Kreiner

17:10 - 18:00  PL 4 Ada Yonath
  The Spectacular Architecture of the Ribosome and Clues about its Origin
  Chair: Peter Colman
The workshop is organized by the Department of Condensed Matter Physics (Universidad del País Vasco, Spain) and the Commission on Mathematical and Theoretical Crystallography of IUCr. It is supported by the Commission of International Tables of IUCr.

The aim of the workshop is the introduction to the current state and the future developments of the new Online Edition of International Tables for Crystallography, Vol. A: Space-group symmetry, and Vol. A1: Symmetry relations between space groups. The new web server provides an excellent on-line tool for the study of crystallographic symmetry and its applications. It gives access to databases with symmetry information on crystallographic groups (plane, space and subperiodic). The available software includes computer tools for the study of group-subgroup relations between space groups (e.g. subgroups and supergroups, coset decompositions, splitting of Wyckoff positions). Possible applications of the available databases and computer tools related to specific problems of solid-state physics and chemistry as magnetic symmetry, phase transitions, structural pseudosymmetry, relations between crystal structures, etc., form an important part of the workshop program. The workshop aims at giving the necessary background and practical skills for an efficient use of the online databases and programs on the new web server of International Tables for Crystallography.

**2011 International School on Charge Density – Theory and Practice**

**30 August – 4 September 2011**
Zaragoza University Residence, Jaca, Huesca (Spain)

**Organizers:**
Prof. Claude Lecomte (CRM2 UMR 7036 Nancy-Université – CNRS, France)
Prof. Fernando J. Laoh (CSIC – University of Zaragoza, Spain)

**Secretary:**
Dr. Pilar García Orduña (CSIC – University of Zaragoza, Spain)

The school is supported by the IUCr Commission on Charge, Spin and Momentum Densities. Charge and spin density determination through high order X-ray and polarized neutrons diffraction experiments is a powerful method to get a detailed description of the chemical and physical properties of molecules and materials. This approach has become quite accessible for organic and first row transition metals complexes using user-friendly software. This school will cover all the aspects of the methods, from data collection procedures to the analysis of derived properties. Extension to proteins and heavy atoms will be discussed. Tutors of the school will be well known specialists in the area and main software authors will attend the school to demonstrate their programs. Software training will be extensively provided to the participants.

The school will be held in Jaca (Spanish Pyrenees), with a minimum of 32 teaching hours, equally distributed between theory and practice. The organization will arrange transport from/to Madrid, and cheap accommodation for participants. A tentative registration cost will be around 360 € including registration, half-board accommodation in a shared room and a half-day hiking activity. The number of attendees is strictly limited to 50 persons.

For more information and formalize registration see [www.iucr2011madrid.es](http://www.iucr2011madrid.es) or contact directly with F.J. Laoh at laohz@unizar.es or C. Lecomte at claude.lecomte@crm2.ujh-nancy.fr.
All workshops will take place on Monday, August 22, 2011 from 9:00 to 18:00 at the Congress Palace. Registration for the workshop is additional to the Congress registration. Please refer to the website for the updated information.

Workshop nº 1:
XAFS Tutorials for crystallographers and beginners: General introduction and analytical methods for crystallographers and beginners in the field of XAFS

The purpose of the Tutorial is to give a general introduction and analytical methods for crystallographers and beginners in the field of XAFS. The number of participants is limited to 60. Lectures will cover the fundamentals of XAFS: data analysis and its principles, theory and simulation of XAFS spectra, with applications to biology, chemistry, physics and materials science. Some tutorials will provide hands-on practice of EXAFS.

For more information please contact:
Isabella Ascone, isabella-ascone@chimie-paristech.fr
Joaquin Garcia Ruiz, jgr@unizar.es

Workshop nº 2:
Current Research on Molecular Structures and Chemical Properties – A Young Perspective

This workshop, proposed by the ECA Special Interest Group 13 and supported by the IUCr Commission of Structural Chemistry, aims to the exchange of current experiences between different groups working in this area.

We invite young researchers to give short talks (< 30 min) to explain to the other participants the main objectives of the research carried out in their groups and on the specific research they are personally involved. The main goal is to learn through these short talks the current work that is carried out on the binomial ‘Molecular Structures/Chemical Properties’ in different groups. We would like to stimulate the establishment of future collaboration, perhaps within the framework of international funding systems.

For more information please contact:
Teresa Duarte, teresa.duarte@ist.ul.pt
Fernando J. Lahoz, lahoz@unizar.es

With resources provided by the IUCr 2011 congress organizers, developers of academic and/or open-source crystallographic software are invited to present their new developments at the Crystallographic Software Fayre. This Fayre will be held throughout most of the IUCr 2011 congress in Madrid, from Tuesday, August 23 until Sunday, August 28, 2011. A booking page showing booked time slots, and time slots remaining, is viewable via:
http://www.cryst.chem.uu.nl/lutz/software_fayre.html

The Software Fayre is being organized by:
Martin Lutz (Utrecht University)
Lourdes Infantes (Instituto Rocasolano, CSIC, Madrid)

Any queries should be sent to Martin Lutz (m.lutz@uu.nl) or Lourdes Infantes (xiourdes@iqfr.csic.es)
The contributions, either poster or oral, should be assigned to one MS when submitted. In the following list the MS are ordered by different IUCr commissions, one MS could be under more than one commission.

**Hot Topics 2010**
- MS31 Structural Implications in Catalytic Processes
- MS32 Graphitic Materials

1. Aperiodic Crystals
- MS30 Diffuse Scattering in Partially Ordered/Disordered Systems
- MS55 Structure and Dynamics by Inelastic Scattering
- MS63 Quasicrystals and their Approximants: Structure and Physical Properties
- MS69 Crystallographic Methods and Software for Periodic and Aperiodic Crystals
- MS84 What is order, and how can one describe it? (Which kinds of matter diffract?)
- MS88 Crystal Chemistry and Physics of Modulated and Composite Crystals
- MS98 Complex Structure and Frustrated Systems: Simulation and Experiments

2. Biological Macromolecules
- MS1 Hot Structures in Biology I
- MS2 Hybrid Methods: the EM-Crystallography Interface
- MS8 Large Biological Assemblies
- MS11 Standardization, Validation, and Automation in Modern Biological Small-Angle Scattering
- MS15 Nucleosome Processing and Epigenetics
- MS16 Crystallography in Disease and Therapy
- MS22 Cell Signalling and Protein-Protein Interactions
- MS23 Difficult Phasing and Difficult Structures
- MS29 Viruses and Viral Proteins
- MS35 The Growth and Morphology of Crystals
- MS36 Understanding Bacterial Pathogenesis
- MS37 X-Ray Lasers and other New Frontiers in Synchrotron Applications to Structural Science
- MS50 Structural Biology of the Immune System
- MS51 Complementary Biophysical Methods: Adding Value to Protein Structures
- MS57 New Perspectives in Structural Genomics
- MS58 New Computational Approaches to Structure Solution and Refinement
- MS64 Hot Structures in Biology II
- MS70 Radiation Damage: Consequences and Uses
- MS71 Machinery of RNA Processing
- MS72 Automated Data Processing and Structural Solution for High Throughput Crystallography
- MS78 Transcription and Translation
- MS85 Membrane Protein Structures
- MS86 Challenges of Low-Resolution Crystallography
- MS92 Crystallizing Challenging Biological Targets
- MS93 Dissecting Enzyme Mechanisms

3. Charge, Spin and Momentum Densities
- MS34 Descriptors of Electronic Structure and Chemical Bonding
- MS41 Advanced Approaches in Charge Density Analysis and Derived Properties
- MS48 Electron Momentum and Spin Densities in Correlated Electron Systems
- MS55 Structure and Dynamics by Inelastic Scattering

4. Crystal Growth and Characterization of Materials
- MS14 Biomaterialization and Biomimetic Materials
- MS28 Wide Band Semiconductor and Other Crystals Used in Optoelectronics
- MS35 The Growth and Morphology of Crystals
- MS49 Crystal Growth and Interface Phenomena at the Nanoscale
- MS53 High-Throughput Crystalization and Polymorphic Search in Pharmaceuticals

5. Crystallographic Computing
- MS6 Crystal Structure Prediction: Practice and Applications
- MS13 Automation of Data Collection and Remote Control of Experiments
- MS27 Developments and Directions for Crystallographic Databases
- MS43 Validation, Error Detection and Fraud Prevention
- MS58 New Computational Approaches to Structure Solution and Refinement
- MS62 Crystallographic Software: the Library Approach
- MS69 Crystallographic Methods and Software for Periodic and Aperiodic Crystals
- MS72 Automated Data Processing and Structural Solution for High Throughput Crystallography
- MS95 Automated Data Processing and Structural Solution for Powder Crystallography

6. Crystallographic Teaching
- MS83 Application of Crystal Structure Information in Chemical Education
- MS97 Web Based Crystallography Teaching: the Use of Modern Communication Methods to Teach Crystallography

7. Electron Crystallography
- MS57 Coherent Diffraction and Imaging
- MS21 Surfaces & Interfaces
- MS44 Quantitative Real Space Electron Imaging
- MS65 Atomistic and Electronic Structures of Nanomaterials
- MS79 Electron Diffraction and Crystallography

8. High Pressure
- MS5 Non-Ambient Powder Diffraction
- MS12 Non-Covalent Interactions in Molecular Crystals and Biomolecular Systems Under Pressure
- MS19 Synthesis, Structure and Properties of Novel Materials at High Pressure
- MS40 Pressure-Induced Phase Transitions
- MS47 Advances in High Pressure Techniques and Instrumentation
- MS60 Solid State Reactivity
- MS75 Liquids, Amorphous and Nanocrystalline Solids at High Pressure

9. Inorganic and Mineral Structures
- MS14 Biomaterialization and Biomimetic Materials
- MS25 Crystallography of Materials with Exchange, Sequestration and Storage Properties
- MS30 Diffuse Scattering in Partially Ordered/Disordered Systems
- MS39 Energy-Related Materials
- MS54 Minerals as Advanced Materials
### 10. Mathematical and Theoretical Crystallography
- MS59: Topological Correlations and Crystal Structure Interconnections
- MS20: Beyond Space-Group Symmetry in Periodic Structures
- MS30: Diffuse Scattering in Partially Ordered/Disordered Systems

### 11. Neutron Scattering
- MS5: Non-Ambient Powder Diffraction
- MS26: SAXS/SANS, Total Scattering and the Nanostructure Problem
- MS33: New Sources (Neutrons, X-Rays, XFEL)
- MS39: Energy-Related Materials
- MS47: Advances in High Pressure Techniques and Instrumentation
- MS55: Structure and Dynamics by Inelastic Scattering
- MS68: Data Reduction of Area Detector Measurements
- MS82: Biological Neutron Scattering and Deuteration
- MS96: Complementary Use of Neutrons and Photons in Magnetism

### 12. Powder Diffraction
- MS5: Non-Ambient Powder Diffraction
- MS9: Topological Correlations and Crystal Structure Interconnections
- MS10: Determination of Ab-Initio Crystal Structures from Powder Diffraction and their Applications in Pharmaceutical Industry
- MS18: Powder Diffraction at the Nanoscale
- MS25: Crystallography of Materials with Exchange, Sequestration and Storage Properties
- MS32: Crystallography in Industrial Process Control
- MS39: Energy-Related Materials
- MS46: Powder Diffraction Methods in Archaeometry
- MS53: High-Throughput Crystallographic and Polymeric Search in Pharmaceuticals
- MS60: Solid State Reactivity
- MS74: Powder Diffraction and Complementary Techniques
- MS81: The Crystallography of Functional Inorganic Materials and their Applications
- MS91: X-Ray Absorption, Diffraction and Imaging in Forensic Science and Ancient Materials
- MS95: Automated Data Processing and Structural Solution for Powder Crystallography

### 13. Crystallography in Art and Cultural Heritage
- MS46: Powder Diffraction Methods in Archaeometry
- MS91: X-Ray Absorption, Diffraction and Imaging in Forensic Science and Ancient Materials

### 14. Small Angle Scattering
- MS4: Industrial Applications of SAXS and SANS
- MS11: Standardization, Validation, and Automation in Modern Biological Small-Angle Scattering
- MS26: SAXS/SANS, Total Scattering and the Nanostructure Problem
- MS51: Complementary Biophysical Methods: Adding Value to Protein Structures
- MS74: Powder Diffraction and Complementary Techniques
- MS82: Biological Neutron Scattering and Deuteration

### 15. Structural Chemistry
- MS3: Polymer and Gel Structure: Arriving at a Structural Model
- MS10: Determination of Ab-Initio Crystal Structures from Powder Diffraction and their Applications in Pharmaceutical Industry
- MS17: Synthons: From Small to Macromolecules
- MS24: New Challenges in Crystal Engineering: Correlating Structure and Properties
- MS38: Fabrication and Macroscopic Properties of Flexible Frameworks
- MS45: Dynamical Structural Science
- MS53: High-Throughput Crystallographic and Polymeric Search in Pharmaceuticals
- MS56: Spectroscopic Approaches (XAFS, NMR, …) in Crystallography
- MS59: Anion Recognition and Templatation in Halogen Bonding
- MS61: Hot Structures in Chemical Crystallography
- MS66: Electric, Magnetic and Other Physical Properties of Molecular Crystals
- MS73: Theory and Practice of Hydrogen Bond: An Evergreen Interaction for Molecular Recognition
- MS74: Solid State Photochemistry
- MS83: Application of Crystal Structure Information in Chemical Education
- MS87: Chirality in the Solid State, From Organic Molecules to Chiral MOF and Helical Materials
- MS94: Molecular Recognition in the Crystal Bulk and in the Surface: Theory and Applications

### 16. Synchrotron Radiation
- MS7: Coherent Diffraction and Imaging
- MS21: Surfaces & Interfaces
- MS23: Difficult Phasing and Difficult Structures
- MS33: New Sources (Neutrons, X-Rays, XFEL)
- MS37: X-Ray Lasers and Other New Frontiers in Synchrotron Applications to Structural Science
- MS47: Advances in High Pressure Techniques and Instrumentation
- MS55: Structure and Dynamics by Inelastic Scattering
- MS58: Radiation Damage: Consequences and Uses
- MS77: XAFS Instrumentation: Automation, Standardization and Validation of XAFS Experiments
- MS96: Complementary Use of Neutrons and Photons in Magnetism

### 17. XAFS
- MS42: XAFS Studies in Biology Coupled to Crystallography
- MS56: Spectroscopic Approaches (XAFS, NMR, …) in Crystallography
- MS70: Radiation Damage: Consequences and Uses
- MS77: XAFS Instrumentation: Automation, Standardization and Validation of XAFS Experiments
- MS91: X-Ray Absorption, Diffraction and Imaging in Forensic Science and Ancient Materials

### 18. COMCIF
- MS89: Archiving, Exchange and Retrieval of Scientific Data in the 21st Century

### 19. Other Topics in Crystallography
Abstract submission

The prepared abstract file must be uploaded in the server to the congress by following the indicated steps, which are slightly different for invited speakers and other participants:

2. a) Keynote speakers will receive the personalized instructions by e-mail from the Technical Secretariat.
   b) Poster presentation and oral contribution: if you do not have Username and Password, click on the “New Abstract” button. Please fill all the fields in the form.
   i) “Title”: write the abstract title (< 80 characters).
   ii) “Keywords”: enter the three keywords already present in the abstract and separated by commas (use small letters).
   iii) Request for Oral Presentation or Poster Contribution: authors must check the preferred option.
   iv) Contribution Category: please indicate the microsymposium chosen from the supplied list of Commissions and Microsymposia (also reported at pages 18-21 of this circular).
   v) “Abstract File”: use the “Browse” button to locate the prepared abstract file in your computer.
   vi) After uploading your file click on the “next” button and fill the fields corresponding to first author personal data, and later those of the co-authors, if appropriate. Click “Next”.
   vii) If you consider all the data is correct click on “Submit Abstract”.

Immediately after confirmation, you will automatically receive a Username and a Password by e-mail.

After submission, the presenting author will have only a 10 day period to modify the abstract by introducing your e-mail and password. After this time (or at the abstract deadline, if this comes first), any modifications will be rejected.

Abstracts should not be sent by email or fax as they will not be processed by the Secretariat nor forwarded to the Scientific Committee for review. Only in case of genuine difficulties, please contact the Technical Secretariat at iucr2011@pacifico-meetings.com.

Processing

The submitting author will receive an automatic confirmation that the abstract and other relevant information have been uploaded and the procedure finalized. In all correspondence with the organizers, please quote the assigned number.

Acceptance as speaker in a given MS will be communicated to the author after the decision has been made by the respective chairpersons, not later than April 30, 2011.

Acceptance of the poster contribution will be notified to the presenting authors by April 30, 2011. Final scheduling of the poster presentation will be communicated to the submitting author after payment of the registration fee (deadline: June 15, 2011).

The accepted contributions will be printed in the Book of Abstracts and also will be made available online in a special issue of Acta Crystallographica Section A, published at the end of the year 2011.

Poster prize awards

Poster awards will be given to the excellent young scientists posters by the IUCr and other organizations such as GE3C, CDDC, PDB, EMU, Crys. Eng. Commun. Details on these awards will be given in the Congress web site: www.iucr2011madrid.es

Abstract preparation

Abstract must be written in English and contain a brief, clear statement of conclusion; statements like “the findings will be discussed” must be avoided. All abbreviations must be defined before being used in the text.

Please note that in the preparation of the abstract it is compulsory to use the template available online (http://www.iucr2011madrid.es/downloads/template.rtf).

Title: Should be not more than 80 characters in length. Exceeding characters will be truncated.

Presenting author: The name of the presenting author must appear first in the list of authors. No one may be first author on more than ONE contribution. Invited speakers are, however, permitted to submit a poster presentation in addition to their talk.

Affiliation: Please report the information in a concise manner. The e-mail address of the presenting author is recommended.

Abstract: There is enough space for approximately 550 words (3500 characters) of text in Times New Roman, font size 9 in a maximum area of 8.5 x 24 cm. Do NOT use a smaller font size. Use single spacing. Include graphics (minimum resolution 300 dpi) only if necessary, and if they reproduce well in black and white. Note that although diagrams in color can be submitted for the electronic Book of Abstracts, the Program and Book of Abstracts will not be printed in color. Please remember that the area of the printed abstract is small and that the graphic will be correspondingly smaller. Please save your diagrams at the correct size before including them in your abstract, note that the maximum size allowed for the uploaded document will be 2 MB.

Keywords: Three keywords must be supplied as they will be used in indexing the Book of Abstracts. A list of suggested keywords is available online in the download section.

(http://www.iucr2011madrid.es/downloads/keywords.pdf)

Note that a printed version of the book of Abstracts will be given only on request and at an extra cost.

Deadline for the submission of Bursary Applications:
March 15, 2011

Deadline for Submission of Abstracts:
April 15, 2011
XXII IUCr CONGRESS AND GENERAL ASSEMBLY

Madrid 22-30 August 2011

Bursaries

Student bursaries
The organizers are currently involved in raising funds to be redistributed as attendance bursaries to young scientists, especially those coming from the less favoured region. It is a policy of IUCr to convey significant amounts of money to this purpose, by utilizing funds from various international institutions and by using part of the congress income. In this respect, no reimbursements and honoraries of any sort are paid to the invited speakers and chairs of the Microsymposia.

The first requirement for obtaining a bursary is the submission of a regular abstract. Also an age limit of 35 applies. Application form must be submitted online not later than March 15, 2011 and should be accompanied by the following documents (to be uploaded):

- Curriculum Vitae
- A headed paper letter from the Research Supervisor who certifies the student status of the applicant and whether the student has access to any source of funds to attend the congress.

The support of organizers, if granted, will include one or more of the following benefits (in a priority order):

1) reduced registration fee
2) accommodation in student dormitory
3) lump sum to cover part of the travel expenses (only in exceptional cases)

In no case, funds will be anticipated to the applicant by the organizers.

Travel support for senior scientists from President’s Fund
Deadline: March 30, 2011
The president’s Fund support senior scientists to attend IUCr Congresses. Details and an Application Form can be found on the following web site:
http://www.iucr.org/iucr-top/cong/index.html

Support program for retired scientists
The local organizing committee will offer a limited number of reduced fees for retired scientists over 70 years old.

A high quality commercial exhibition fair will be held as a central feature of XXII IUCr Madrid 2011. We are convinced that this meeting will be an excellent opportunity for companies to make direct contact with a large number of scientists leading research projects at international level.

The exhibition will run from August 23 to 28, 2011 in the Multipurpose Hall of the Madrid Municipal Conference Centre. More than 1500 m² for 100 booths are prepared to receive industrial and supplier companies.

Please, visit our web page www.iucr2011madrid.es to obtain further details on the sponsorship and exhibition fair.

The following program will be organized for participants and accompanying persons.

- Welcome Reception: Monday, August 22, 20:30 – 22:00 (Included in the registration fee) The welcome cocktail will take place immediately after the Opening Ceremony at the main Lobby of the venue, Palacio Municipal de Congresos.
- Cultural Activity: Thursday August 25, 19:30 – 21:30

Social Program

Congress Dinner: Friday August 26, 21:00 – 01:00
It will take place at the Botanical Garden of the Universidad Complutense de Madrid (UCM). Please see registration.

Congress Tours: Different tours will take place from August 23 to 30. Please see Tours.

Registration

<table>
<thead>
<tr>
<th>Registration Fees in EUROS</th>
<th>Until May 15, 2011**</th>
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</thead>
<tbody>
<tr>
<td>Participant</td>
<td>560</td>
<td>640</td>
</tr>
<tr>
<td>Student*</td>
<td>270</td>
<td>320</td>
</tr>
<tr>
<td>Accompanying Person</td>
<td>180</td>
<td>200</td>
</tr>
<tr>
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<td>40</td>
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* Students under 35 years old must attach a copy of their student ID or enclose a letter from the Head of the Department certifying their student status.
** In order to benefit from the early bird registration fee, payment must be made before May 16, 2011. Otherwise the full late registration will be applied.

How to register:
Registration should be made through the congress website www.iucr2011madrid.es, by filling the Registration & Accommodation on line form. Exceptionally, if you face any problem in sending your registration on-line, please contact the technical secretariat to send you a pdf format for manual registration.

Fee Includes:

Method of payment:
- All payments must be made in Euros (€) by credit card (Visa, Mastercard). The organization strongly recommends using the credit card payment, otherwise, bank transfer will be accepted in Euros in favour of: Grupo Pacifico, S.A.
- Bank Name: Banco Sabadell Atlántico
- Account Number: 0081 5084 04 0001264536
- IBAN Code: ES45 0081 5084 04 0001264536
- SWIFT Code: BSAB ES88

Commercial exhibition fair

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- SWIFT Code: BSAB ES88
Registration

- Please do not forget to include the following reference in the bank transfer “IUCR 2011 REGISTRATION FEE”, as well as the name of the participant.
- All bank charges incurred will be borne by the payee.
- Participants must send by fax or e-mail, a copy of the receipt of the bank transfer to the technical secretariat within 5 working days. Otherwise registration and all other services required will not be confirmed.
- No confirmation will be sent until the technical secretariat has received the full payment.
- Any difference arising in the payments will be collected on site by the technical secretariat.
- In the case that registration funds are wired late or for unexpected reasons, are not credited to the congress account at the time of registration, the original bank receipt will be required. If no proof of payment can be presented, full payment will be required on site.
- Additional requests made after August 10, 2011 will be processed on site.

Registration cancellation policy:

- Cancellations must be notified in writing to iucr2011@pacifico-meetings.com.
- Any name change will be treated as a cancellation and a new registration will be made.
- 100 % refund cancellation by May 15, 2011 (an administrative charge of 50 € applies).
- 50 % refund cancellation by June 30, 2011.
- No refund cancellation after July 1, 2011 or registered participants who fail to attend.
- Corresponding refunds will be made from September 1, 2011 onwards.

How to get to Madrid

- By Bus:
  Madrid-Álvaro bus station is the main bus station in the city and have routes to other Spanish cities. Méndez Álvaro is located in the south of the city and Avenida de América is located in the north-east.
  Bus Lines 204 and 200 connect Barajas airport with Avenida de América bus station.

Underground network map showing position and connections between the airport, venue (Campo de las Naciones), main stations, historical city center (Sol-Opera) and Halls of Residence (Ciudad Universitaria).

- By Air: Barajas Airport
  Madrid-Barajas Airport is just 13 km away from the city, and its connections by public transportation are excellent. Besides bus or taxi, travelers may take the Metro, every five minutes a train to/from Madrid-Barajas Airport leaves from Nuevos Ministerios Station in the City Centre at a cost of 2 € while you will pay only 1 € for a ticket within the City!

  The underground (Metro) is the most efficient and affordable way to move around Madrid. The city has a vast metropolitan network and covers almost all the points in the capital and many of the neighboring areas.

  To take a taxi you must go to the appropriate taxi rank. Signs of taxi stops are well indicated at the arrival area of each terminal. The official taxis are white with red line. Ignore any drivers who offer their services unsolicited inside the terminals. Make sure that the taxi driver has started up the taximeter at the start of the journey (minimum fare). You may request a free receipt with the tax ID, amount, date, license number and vehicle registration number, or a printed receipt. The estimated cost of a taxi from the airport to the city centre is 30–40 €, and from the airport to the venue is 15 – 20 €.

  Supplements:
  - Journeys beginning or ending at the airport, including those within the airport grounds: 5.50 €.
  - Journeys originating or ending at bus stations, train stations or the Parque Ferial Juan Carlos I (IFEMA near venue) fairs complex: 2.95 €.

- By Train:
  International trains arrive at Atocha or Chamartin train stations. Atocha is located in the south center of the city and Chamartin is in the north. Both stations have access to metro stations.
XXII IUCr CONGRESS AND GENERAL ASSEMBLY

The Venue: Palacio Municipal de Congresos de Madrid
Its avant-garde design has given it great versatility, with the technology and services that are necessary to absorb all market demands. Address: Av. de la Capital de España 7, 28042 - Madrid (Spain) www.madridespaciosycongresos.com

How to reach the Venue
- By Metro: Line 8 (Nuevos Ministerios-Aeropuerto), Campo de las Naciones station.
- By Bus: Line 122, Avenida de América to Feria de Madrid, Campo de las Naciones bus stop.
- By Taxi: From the centre, 15 minutes approximately. Estimated cost: 20 – 25 €. From the airport, 10 minutes approximately. Estimated cost: 15 - 20 €.

Opening hours of the registration desk on site
- Registration desk will be open on Monday August 22, from 11:00 to 20:00h.
- From Tuesday August 23 to Monday August 29, it will be open from 08:00 to 19:00h.

Official web site
The official web site of the congress is www.iucr2011madrid.es Participants will be able to submit abstracts, to register to the congress, to make reservations for hotels and tours and to find the updated version of the Scientific Program. Any news on the congress will be announced in the official web site.

Clothing
Informal for all the occasions.

Exhibition
A commercial exhibition is scheduled to take place in conjunction with the congress, from Tuesday August 23 to Sunday August 28, 2011. For further information please visit the web site www.iucr2011madrid.es

Internet and fax
Internet connection will be provided during the congress hours. However, no Fax machines will be available.

Language
The official language of the congress will be English. Therefore, sessions and posters will be presented in English.

Business hours & shops
Most shops open between 09.30 and 13.30h in the morning and 17.00 to 20.00h or even later in the afternoon. Department stores remain open all day from 10.00 to 22.00h. On Sundays shops are closed except those in the central area (around Puerta del Sol and Gran Via) that are open every day.

City transportation
The city of Madrid counts with excellent means of transport. Its underground network (metro) has modern trains and stations and links to most destinations reaching even some of the main towns in the surrounding areas of the city. Using the underground will be the best way to get from one part of the city to another. www.ctm-madrid.es is a useful website for planning your transportation in Madrid; you will find schedules for buses, trains and for the subway lines. All the vehicles, either buses or trains of the whole network are air-conditioned.

Climate
The average maximum temperature in Madrid in August is 90°F/32°C (probably lower at the end of the month) and the average minimum temperature is 61°F/16°C. Madrid will surprise you with its intense and enveloping blue sky. It has a dry climate with little rainfall.

Currency and banks
The national currency of Spain is the Euro (€). Exchange facilities are available at Barajas airport, most banks and also along main streets (ATMs). Debit cards and credit cards are widely accepted. However, it would be wise to check this with your bank before travelling.

Electricity
Spain’s standard electricity supply is 220 Volts (V), 50 Hertz (Hz) AC. The plugs are round two pins, European standard.

Post office
The closest post office to the venue is: Avenida del Partenón s/n (Recinto Ferial Ifema) 28042 - Madrid
Hotels often provide simple postage services.

Smoking
Smoking restrictions apply in most public areas.

Time
The time in Madrid is the Central European Time (Summer Time GMT+2)

Tipping and consumer tax
Service is normally included. However, a small tip shows your appreciation of the service (~5%). There are two different tax rates in Spain: 8% and 18%. You will pay 8% tax on your hotel and restaurant bills, as well as other items considered “essential”. Most physical items purchased in shops will be taxed at the 18% rate.

Visas
The Spanish Ministry of Foreign Affairs and Cooperation (http://bit.ly/8XlyCa) establishes some requirements for entry into Spain for a stay not exceeding ninety days in any six month period. Further information regarding these requirements and as well as the Visa issues can be found through the website http://bit.ly/6WyqP0 and/or directly through the Spanish Embassies or Consulates whose addresses can be found through this web address http://bit.ly/6bbr05.
In order to guarantee accommodation the organization recommends to send the reservation before June 1, 2011. A number of hotels rooms have been blocked to guarantee accommodation for IUCr participants. Special care has been taken in selecting hotels with an easy reach of the venue by metro. Please check details on the hotels in the congress web page www.iucr2011madrid.es. Grupo Pacifico is the official IUCr2011 hotel handling agent. Therefore, please do all inquiries regarding accommodations to:

**Grupo Pacifico**
Paseo del General Martínez Campos, 44 – 1º
E-28010 Madrid (Spain)
Telf: +34 913 836 000
Fax: +34 913 023 926
E-mail: iucr2011@pacifico-meetings.com

**Reservation and payment**
- Hotel reservations must be made by filling the Registration & Accommodation online form (please visit the web site www.iucr2011madrid.es).
- Hotel reservations & rates are limited to the Congress dates (arrival August 22 and departure August 30, 2011). For extra nights, please contact Grupo Pacifico.

### Hotel accommodation

<table>
<thead>
<tr>
<th>Hotel category</th>
<th>SINGLE</th>
<th>DOUBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-star</td>
<td>104 € - 147 €</td>
<td>109 € - 147 €</td>
</tr>
<tr>
<td>4-star</td>
<td>68 € - 115 €</td>
<td>78 € - 131 €</td>
</tr>
<tr>
<td>3-star</td>
<td>50 € - 90 €</td>
<td>50 € - 104 €</td>
</tr>
</tbody>
</table>

*All rates quoted are per room and per night, breakfast and taxes are included.

**Accommodation cancellation policy**
- Cancellations must be notified in writing to iucr2011@pacifico-meetings.com.
- For further information please visit the web site www.iucr2011madrid.es.

### Halls of Residence on Universidad Complutense de Madrid

Reservations must be made for the entire duration of the congress. Double rooms must be reserved under the name of two people.

<table>
<thead>
<tr>
<th>Colegios Mayores UCM*</th>
<th>Ciudad Universitaria (L.6) or Moncloa (L.3, L.6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Room with bathroom</td>
<td>42,00 €</td>
</tr>
<tr>
<td>Single Room with shared bathroom</td>
<td>37,00 €</td>
</tr>
<tr>
<td>Double Room with bathroom</td>
<td>58,00 € (29,00 € per person)</td>
</tr>
<tr>
<td>Room for handicapped people</td>
<td>42,00 €</td>
</tr>
</tbody>
</table>

*All rates quoted are per room and per person, breakfast and taxes are included.

<table>
<thead>
<tr>
<th>Residencia Galdós*</th>
<th>Metropolitano (L.6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Room</td>
<td>49,00 €</td>
</tr>
<tr>
<td>Double Room</td>
<td>65,00 € (32.50 € per person)</td>
</tr>
<tr>
<td>Room for handicapped people</td>
<td>49,00 €</td>
</tr>
</tbody>
</table>

*All rates quoted are per room and per night, taxes are included. Breakfast is not included.

### Congress tours

Several tours are offered to congress delegates and accompanying persons to give a chance to experience the history, culture and environments of Madrid and the surrounding areas. Tours can be reserved on the congress website. For further details check the congress web page www.iucr2011madrid.es.

<table>
<thead>
<tr>
<th>Tours</th>
<th>Rates</th>
<th>Tuesday, August 23</th>
<th>Wednesday, August 24</th>
<th>Thursday, August 25</th>
<th>Friday, August 26</th>
<th>Saturday, August 27</th>
<th>Sunday, August 28</th>
<th>Monday, August 29</th>
<th>Tuesday, August 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madrid Sightseeing Tour + Madrid de los Austrias (Half day tour)</td>
<td>35,00 €</td>
<td>• (AM)</td>
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<td>• (AM)</td>
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<tr>
<td>Reina Sofia Museum + Royal Palace (Half day tour)</td>
<td>36,00 €</td>
<td>• (AM)</td>
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<td>• (AM)</td>
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<tr>
<td>Madrid Panoramic Sightseeing Tour + Prado Museum (Half day tour)</td>
<td>29,00 €</td>
<td>• (PM)</td>
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<tr>
<td>Aranjuez-Chinchón (Full day tour, Lunch included)</td>
<td>93,00 €</td>
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<td>• (AM)</td>
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<tr>
<td>El Escorial (Half day tour)</td>
<td>53,00 €</td>
<td>• (AM)</td>
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<td>• (AM)</td>
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<tr>
<td>Alcalá de Henares (Half day tour)</td>
<td>28,00 €</td>
<td>• (AM)</td>
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<td>• (AM)</td>
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<tr>
<td>Toledo (Full day tour, Lunch included)</td>
<td>101,00 €</td>
<td>•</td>
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<tr>
<td>Segovia-La Granja (Full day tour, Lunch included)</td>
<td>102,00 €</td>
<td>•</td>
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<td>• (AM)</td>
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<tr>
<td>Avila (Full day tour, Lunch included)</td>
<td>92,00 €</td>
<td>•</td>
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<td>• (AM)</td>
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<tr>
<td>Barcelona* (Full day tour, Lunch included)</td>
<td>122,00 €</td>
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<td>• (AM)</td>
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<tr>
<td>Seville* (Full day tour, Lunch included)</td>
<td>115,00 €</td>
<td>•</td>
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<td>• (AM)</td>
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<tr>
<td>Valencia* (Full day tour, Lunch included)</td>
<td>104,00 €</td>
<td>•</td>
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<td>• (AM)</td>
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</tbody>
</table>

*High Speed Train tickets are not included in the price, since rates may vary according to the booking date rates of train tickets on request.