THE SCHOOL

Charge density determination through accurate high order X-ray 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 metal complexes using user-friendly software. This school will cover all 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 are recognized scholars and specialists in the field and main software authors will attend the school to demonstrate their programs. Software training will be extensively provided to the participants. Therefore the number of students will be limited to 50. The school programme is available at: http://www.iucr2011madrid.es/index.php/program/satellite-meetings

ORGANIZERS

Prof. Claude LECOMTE, CRM2 UMR 7036 CNRS - Nancy University, France
Prof. Fernando J. LAHOZ, ICMA-CSIC - University of Zaragoza, Spain

SECRETARY

Dr. Pilar GARCIA-ORDUÑA, ICMA-CSIC - University of Zaragoza, Spain

CONTACT

E-mail: lahoz@unizar.es ; mpgaror@unizar.es

TRAVEL

The School organization provides facilities (with an extra-cost) to travel from Madrid to Jaca (departure at Madrid "Puerta de Atocha" station at 9:00 a.m. on 30th August), by fast train from Madrid to Zaragoza and in a private hired bus to Jaca. The return journey from Jaca to Madrid is expected to arrive at Madrid "Puerta de Atocha" Station at 11:52 a.m. on 4th September. If you need to arrive to Madrid earlier, please, contact the organization to help you to arrange your journey back in the best way.
If you prefer to organize your journey, bus lines to Jaca are available from Zaragoza, Huesca and Pamplona see: www.alosa.es. Alternatively, fares and timetables of trains can be found at the following website: www.renfe.es. Zaragoza can also be reached by plane; Air Europa, Air Nostrum, Iberia and Ryanair are the airlines that operate from this airport. Further information about flights from this city: http://www.zaragoza-airport.com or in the airlines websites.

**ACCOMODATION**
The School will take place at the Zaragoza University Residence at Jaca (http://www.unizar.es/resijaca/). Accommodation in the University Residence is included in the registration fee (shared double room) but can be alternatively reserved in a single room with an extra cost. Participants are expected to arrive the 30\(^{th}\) August and leave on 4th September. If you plan to arrive earlier or leave later, please state it in the registration form. Breakfast and lunch are included in the registration fees.

**PRACTICAL SESSIONS**
The school will cover theoretical background of charge density determination and analysis, but special emphasis on practical sessions will be done. Software training will be extensively provided to the participants; all participants will have practical sessions with both most popular charge density softwares, XD and MoPRO. Computers will be provided by the organization.

**REGISTRATION FEES (Deadline May 15, 2011)**
All type of registration includes accommodation and half-board (breakfast and lunch) in the University residence where the School will take place. The organization has also planned optional travel from Madrid to Jaca (and back to Madrid).

Please choose your appropriate registration fee and sign it in the registration form

- □ Registration (accommodation in shared double room) : 270 €
- □ Registration (accommodation in single room) : 330 €
- □ Registration (accommodation in shared double room) + travel (Madrid-Jaca-Madrid): 390 €
- □ Registration (accommodation in single room) + travel (Madrid-Jaca-Madrid): 450 €

**APPLYING FOR A GRANT**
The organization will provide a limited number of grants to waive the registration fees (150 €) for students and young researchers under 35 years old. If you apply for a grant, please send an application letter, explaining your motivation to attend the School, a recommendation letter of your advisor or head of laboratory/department and a CV to the secretary of the school (mpgaror@unizar.es). If your application is approved, you will be reimbursed in Jaca during the School.
PAYMENT METHOD:

A) On line payment: We are working to make on-line payment available. If you are interested in this option, please send us your registration form (mpgaror@unizar.es) and we will send you a reminder as soon as the on-line payment is accessible.

B) Bank transfer of the whole amount of the chosen registration fee.

Account name                       "Cursos extraordinarios de la Universidad de Zaragoza"
Bank                               CAJALON
Address                             c/ Coso , nº 29 E-50003 Zaragoza (Spain)
BBAN code (within Spain): 3021-9296-81-2244472821
IBAN code: ES46 - 3021-9296-812244472821
BIC SWIFT code: BCOEESMM021

Please send the registration form together with a copy of the bank transfer order to:

Fernando J. LAHOZ DIAZ: lahoz@unizar.es
Pilar GARCÍA-ORDUÑA: mpgaror@unizar.es

Notes:
- Please make sure the amount received by the organization is the exact amount of the chosen registration fee.
- Please make sure your name is stated in the bank transfer and specify "Registration Jaca Charge Density School" to identify the transfer.

SOCIAL

The registration fees also include a cultural excursion to the monastery of San Juan de la Peña (http://www.monasteriosanjuan.com/) and the small Romanesque village of Santa Cruz de la Serós.

JACA CITY

The School will take place at the Zaragoza University Residence at Jaca (Spain). Jaca, situated on a hill above the Aragon river, at the heart of the Pyrenees, was the first capital of the kingdom of Aragon which was established in 1305. From the Middle Ages, Jaca is an important staging-point on the Way of St James. In summer it becomes an important tourist resort and a branch of Zaragoza University. If you can find a moment to enjoy the city we recommend you to plan your visit: http://www.jaca.es/turismo.php.