

REXS 2025 Almadraba



Monday, 6 October 2025 - Friday, 10 October 2025

Hotel Almadraba Park (Roses, Girona, Spain)

Scientific Programme

SCIENTIFIC TOPICS

The conference scope covers broadly speaking Resonant soft & hard x-ray scattering from structural, morphological, electronic and magnetic order in materials such as heavy correlated and quantum, 2D Van-der-Waals, polymers, multifunctional, multilayers, etc.

More specifically:

Resonant magnetic scattering from ferromagnets, antiferromagnets,

non-collinear magnetic states.

Resonant scattering studies of Orbital ordering, Charge Density Waves

Resonant coherent scattering and spectroscopy (xpcs,...)

Resonant x-ray holography and Coherent Diffraction Imaging of electronic and magnetic states

Time-resolved resonant scattering techniques

Advanced methodologies

Advanced detectors for soft and x-ray detection, time-resolved experiments

Updates of instrumentation, advanced on instrumentation

New developments in the field, future perspectives

SESSIONS

The conference program will include:

- 3 to 5 invited keynote speakers, nominated speakers and 20+ contributed talks
- Special sessions on heavy correlated/quantum materials, 2D van der Waals materials, detectors and new developments
- 2 poster sessions
- 2 best poster awards for early career researchers

HANDS-ON TUTORIALS

- The conference offers to free register for one of four proposed hands-on tutorials. This will be on Monday morning at ALBA synchrotron. The session will start with a keynote general lecture, and then tutorials will proceed with up to 4 parallel sessions with additional specific lectures and a hands-on computing practical. These 4 tutorials will be done if there is a minimum number of people interested on, but we expect to carry all of them as they offer a timely and relevant introduction and practical to specific aspects and approaches of resonant x ray scattering. In further details:

- Tutorials introductory overview keynote lecture, by Claudio Mazzoli (SNLS II-BNL) (for every one assisting the tutorials session)
- Tutorial I: Resonant elastic X-ray scattering & FDMNES simulations, with Yves Joly (CNRS)
- Tutorial II: Coherent Imaging & simulations, with Riccardo Battistelly (HZB, Univ. Augsburg) and Daniel Perez-Salinas (ALBA)
- Tutorial III: X Ray Photon Correlation Spectroscopy, with Sophie Morley and Sujoy Roy (ALS-LBNL)
- Tutorial IV: CD-REXS from magnetic chiral and skyrmion-like states, with Shilei Zhang (Shanghai Tech Univ)