



EXSA Quantitative methods in X-Ray spectrometry

AUTUMN SCHOOL & WORKSHOP



Saclay, Paris, France

October 23-27, 2023

EXSA, the **European X-ray Spectrometry Association** (with members worldwide) is a non-profit association, thriving in **promoting innovation and cooperation** between X-ray spectroscopists and analysts and being also a **collaborating and networking platform** for our members from academia, industry and metrology institutes. EXSA aims to improve the interface between the academic and industrial sector and to promote X-ray spectrometry modules in European university curricula. **EXSA** and the Laboratoire National Henri Becquerel (**LNE-LNHB**) co-organize this October 23-27, 2023, close to C.E.A. Saclay (France), a school and workshop week event in **Quantification Methods in X-ray Spectrometry**, in line with those of the series organized in 2017 and 2019.

AUTUMN SCHOOL

OCTOBER 23-25, 2023

The school will dispense high-quality education via **lectures and hands-on training** sessions on various quantification aspects in X-ray Spectrometry.

The attendees are encouraged to participate in the workshop, in order to make use of the interdisciplinary platform created for strengthening their interactions within the XRS community.

For who?

Young scientists at the graduated, PhD or early post-doc levels. The basic notions of interaction of X-ray with matter are required to make use of the lectures.

The school is free to attend, and limited to 20 persons.

School Program

- Interactions of X-ray with matter
- Quantitative methods for various types of matrices in industrial XRF
- GIXRF and GEXRF
- EDXRF and WDXRF
- Metrology & Uncertainties
- X-ray Sources and Detectors
- High-resolution X-ray emission and absorption Spectroscopies
- Hands-on: Spectral analysis (COLEGRAM, PyMca)
Spectral Simulation (FP/Bayesian Code)

MORE INFORMATION? www.exsa.hu/quant2023

Contact: quant2023@exsa.hu

WORKSHOP

OCTOBER 25-27, 2023

The workshop aims at fostering the interaction between young scientists and experienced researchers, as well as between academic and industrial scientists. It will constitute excellent networking and knowledge-exchange possibilities, and a platform to advance the debate on the **current challenges in XRF quantification**.

Workshop Topics

- Quantitative X-ray absorption spectroscopy (XANES, XAFS, EXAFS)
- High resolution spectroscopies
- XRS for novel materials including batteries, nanostructures, etc.
- Laboratory and In-field XRF
- Quantitative trace analysis (GI/GE XRF and TXRF)
- Sample preparation & handling for quantitative analysis
- Quantitative high-resolution and μ -XRF (2D and 3D)
- Quantification with Monte Carlo methods
- Quantification with the Fundamental Parameter approach
- Fundamental Parameters - measurements and calculations

DEADLINES

School Application: Sept. 20, 2023

Abstract Submission: Sept. 20, 2023

Registration: Sept. 30, 2023