



TUTORIAL

The latest developments of Fastosh Tuesday, the 28th of January, 2025

Since the latest tutorial given at SOLEIL on « FASTOSH », which was held in 2023 at the 17th SOLEIL User Meeting, a number of functionalities have been added to this SOLEIL home-made XAFS data treatment software, currently available for free download on SAMBA beamline's website.

Location: SOLEIL Reception Building

Organizers: Gautier LANDROT (SAMBA)

Number of participants: 50

This presentation will be essentially a live demo of the program by its author, to interactively showcase:

- Its main functionalities, especially those that are unique to the program, and demonstrate their potential usefulness in many fields of science and when conducting experiments in *operando* conditions at the XAFS beamline.
- Its newest functionalities, including:
 - Tools to visualise Wavelet Transformation of the EXAFS
 - Tools to interpret Fourier Transform or Wavelet Transform of the EXAFS, where the EXAFS is quickly modelled using single scattering paths generated by FEFF8L
 - Multiple new functionalities for MCR-ALS data treatment, including those to treat XAFS data and non-XAFS data collected by laboratory bench-top spectrometers. All these new functions were not available in the original Jaumot et al. MCR-ALS GUI 2.0 toolbox, which is customized ¹
 - Miscellaneous, including a function for multiple linear combination fitting

For this presentation, the use of a personal laptop won't be required. This meeting is essentially meant to be a convivial and interactive opportunity to get an update from the program's author on the main functions of the software and how to use them, as well as exchange and interact with each other, notably to ask specific questions on the software or request/suggest the development of additional functions that could be useful for the User Community.

Reference

- 1- Jaumot, J., de Juan, A. and Tauler, R. (2015) MCR-ALS GUI 2.0: New features and applications. *Chemometrics and Intelligent Laboratory Systems* 140, 1-12.