



Contribution ID: 47

Type: **Oral**

An Integrated Data Acquisition and Analysis Software for XRF Mapping Experiments

Wednesday, September 21, 2022 5:00 PM (20 minutes)

Mapping experimental mode is very common due to the increasing macro and nanoprobe beamlines in synchrotron facilities. Here we present a python-based software system with integrated data acquisition, analysis and visualization functions developed for a XRF microscopy beamline in Beijing Synchrotron Radiation Facility (BSRF). The control and acquisition part is based on the Mamba framework developed for the future High Energy Photon Source (HEPS). Multiple scanning modes including flying scans are incorporated in the software with a user-friendly Graphical User Interfaces (GUI). PyMCA toolkit is integrated with the acquisition module for real-time data elements distribution analysis. The software has recently been deployed at the XRF beamline of BSRF. With minor modification it has also been implemented at another STXM beamline. The successful deployment of the software lay a firm foundation for the software requirements in future mapping experiments at HEPS.

Email address of presenting author

bixx@ihep.ac.cn

Primary author: BI, xiaoxue (The Institute of High Energy Physics of the Chinese Academy of Sciences)

Presenter: BI, xiaoxue (The Institute of High Energy Physics of the Chinese Academy of Sciences)

Track Classification: NOBUGS 2022