

APS WK11: Advanced Spectroscopy and LERIX (ASL) Workshop

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We would like to share our vision of the future for spectroscopy programs at 25-ID. The canted beamline will have two independently operating branches that will be jointly operated by SPC and TRR groups. One branch will host a new generation LERIX spectrometer and time resolved x-ray science and another for a microprobe spectroscopy. The New APS-U LERIX spectrometer will enable XAS at low energies using hard x-rays. Time resolved x-ray science will bring together current 11-ID-D and AMO program for multiple timescale electronic and structural dynamics of underlying material properties. The microprobe branch will have fast changing x-ray beam size for large to small scale mapping, enabling the needle in the haystack to be found and probed. The microprobe branch will host X-ray emission spectroscopy with simultaneous collection of 7 emission lines for in-situ/operando studies of multiple elements, high-resolution fluorescence spectroscopy based on 3 strip bent analyzers, and single shot chemical mapping. The structure of this full day workshop will have brief overview of these capabilities by the SPC and TRR group members followed by guest speakers highlighting science cases.