



# Small-angle Scattering Seminar Series

Organized by SAXS-SIG, Advanced Photon Source

A monthly seminar series, organized by Small Angle X-ray Scattering Special Interest Group (SAXS-SIG) at Advanced Photon Source, is focused on discussing, celebrating, and learning from new frontiers of science, research, and development based on small-angle scattering (SAS). This is a monthly seminar organized virtually over ZOOM where the speaker will be invited by SAXS-SIG. In order to join the seminar please subscribe to the small-angle mailing list here: <https://mailman.aps.anl.gov/mailman/listinfo/small-angle>

## Upcoming Seminar

**Date:** Feb 16, 2022

**Time:** Wed, 11:00 AM (CST)

**Speaker:** Cheng Wang

**Institution:** ALS, LBNL

**Title:** Small Angle Scattering Capabilities at the Advanced Light Source from Soft to Tender to Well Done

**Abstract:** Here we present capabilities and advances in small angle scattering at the Advanced Light Source that leverage the entire range of X-rays from soft to tender to hard, and that provide exciting new opportunities to characterize the molecular architecture of complex soft materials. The ALS has helped to pioneer the development of resonant soft and resonant tender x-ray scattering, which combine x-ray scattering and spectroscopy, and enable the user to selectively highlight different structures within their sample based on chemistry and bond orientation. A wide range of sample environments allows users to conduct a variety of *in situ* and *in operando* experiments. Users have the ability at several beamlines to ship samples and collect data remotely, for a diverse range of samples from thin films to proteins in solution. New and future



**Cheng Wang:** Staff Scientist leading the Resonant Soft X-ray Scattering for Soft Materials at Advanced Light Source, Lawrence Berkeley National Laboratory

developments include the integration of machine learning in collection and analysis, autonomous data collection, robotic solution mixing, and XPCS.