

## **Technical Capabilities of the Coherent Hard X-ray (CHX) Scattering Beamline**

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The Coherent Hard X-ray Scattering (CHX) beamline, currently starting its user program at Brookhaven National Laboratories National Synchrotron Light Source II, is dedicated to experiments such as X-ray Photon Correlation Spectroscopy (XPCS) that exploit the extraordinary source brightness. The beamline's capabilities for measuring dynamics as well as for (simultaneous) structural characterization on solid and liquid interfaces will be described.

The beamline endstation instrumentation is designed to collect as much of the available scattering information as possible, allowing for covering simultaneously a Q-range corresponding to atomic sizes to hundreds of nanometers. The integrated endstation approach combines an 18 axes diffractometer, enabling horizontal and vertical scattering geometries, with a small angle scattering instrument with up to 16m sample-to-detector distance and in-vacuum detectors. The state of commissioned and planned capabilities, such as scattering techniques and sample environments, will be reported.