Warmer, deeper, wider: New developments at MacCHESS

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MacCHESS supports diffraction experiments for structural biology at CHESS (the Cornell High Energy Synchrotron Source). We provide amenities for routine experiments in macromolecular crystallography (MX) and biological small-angle X-ray scattering (BioSAXS), including: High flux X-rays from recently upgraded 3rd generation source.

• Fully equipped MX and BioSAXS stations, with EIGER2 detectors, SEC-SAXS capability, data collection and processing software, etc.

• Pressure cryocooling capability to improve crystal quality, trap gases. However, our greatest strength is in helping researchers develop and extend new techniques. Current focus areas include:

• Performing MX at room temperature, using serial crystallography to obtain complete datasets.

• Using high pressure, for both MX and BioSAXS, to answer questions about life in the depths, protein folding, enzyme reaction pathways, food processing... Examining a wide range of samples, including lipids, nanoparticles, metal-oxide-framework (MOF) crystals, embryos...

Coming in September - hands-on workshop in Ambient Crystallography

For more information: http://www.chess.cornell.edu,