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**Advances in Crystallographic Hardware and Software for Structural Biology.** Cary B. Bauer, Matthew M. Benning, David M. Khazins, Vladislav Sedov, Sergei Medved, Bruker AXS Inc., 5465 E. Cheryl Parkway, Madison, WI 53711.

In recent years the number of protein structures solved by X-Ray crystallography has grown tremendously. As a result, the demands placed on X-ray hardware and software have also increased greatly. This presentation will highlight recent advances in hardware and software from Bruker AXS, specifically involving products designed for protein crystallography. One such product is the AXIOM 200. This is a new, large format photon counting area detector based on microgap technology. This type of detector offers many advantages over traditional detectors including maximum sensitivity, ultra-low noise and high dynamic range. In addition, the extremely fast readout eliminates the need for an experimental shutter. Developments in X-ray sources and optics will also be discussed as well as crystallographic results obtained using these new instruments.