

Australian Synchrotron MX beamlines - The Impact of Dectris Eiger Detectors

Monday, 2 December 2019 11:50 (15 minutes)

The Australian Synchrotron MX beamlines support a user community that includes both Structural Biology (PX) and Chemical Crystallography (CX). Addressing the needs of both communities leads to a number of compromises regarding the design and implementation of the beamline infrastructure; however it also leads to unique opportunities.

Both MX Beamlines have recently had detector upgrades; MX2 received a Dectris Eiger 16M with the assistance of the Australian Cancer Research Foundation in Jan 2017 and MX1 commissioned a Dectris Eiger 2 9M in May 2019. These single photon counting detectors replace the previous CCD Area detectors, with the improvement in technology allowing an increase in frame rates from one second a frame to >0.01 seconds a frame.

These new detectors have had significant impact on not only the throughput of the data collection but impacted the strategy taken to collect good data for the diverse PX and CX user communities. This changes the way the beamlines have been used, and presents some new unique opportunities.

Level of Expertise

Expert

Do you wish to take part in the poster slam

No

Travel Funding

No

Speakers Gender

Male

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Session Classification: Session 2

Track Classification: Technique Development