



Contribution ID: 439 Contribution code: MOPMO11

Type: **Poster Presentation**

Machine vision cameras for beam spot analysis

Monday 8 September 2025 16:00 (2 hours)

The Canadian Light Source is a third generation synchrotron which supports 22 operational beamlines. A project to replace all beam diagnostic analog cameras with CCD cameras was initiated in 2020. Over time this project has been expanded to include beam analysis capabilities. We present an EPICS-based imaging system that uses inexpensive CCD cameras. The system computes beam parameters including strength, centroid, ellipticity, eccentricity, and angle. Analysis is performed in real time, and images can also be saved for post processing. Features, implementation details, obstacles and long term plans will be discussed.

Footnotes

Funding Agency

I have read and accept the Conference Policies

Yes

Author: BREE, Michael (Canadian Light Source (Canada))

Co-authors: VOGT, Johannes (Canadian Light Source (Canada)); BATTEN, Tonia (Canadian Light Source (Canada)); JAVED, Wahhaj (Canadian Light Source (Canada))

Presenter: BREE, Michael (Canadian Light Source (Canada))

Session Classification: MOP

Track Classification: MC07: Data Acquisition and Processing Platforms