

Contribution ID: 1036

Type: Invited talk

Data analysis using Al and HPC at CLS

Friday 30 August 2024 11:00 (20 minutes)

Integration of high performance computing and machine learning / artificial intelligence into beamline operations is an important step for handling growing data volumes and to increase scientific productivity of users with large or complex datasets. Work to incorporate a new on-premise high performance computing cluster at the Canadian Light Source with beamline data processing and analysis will be presented. This includes AI-based, GPU-accelerated segmentation of CT data; automated MX crystal centering using object detection; HPC-acceleration of MX dataset processing, large multi-dataset, multi-modal spectromicroscopy imaging data analysis; automated interpolation of large unevenly spaced datasets; and automated reconstruction of CT data during beamtime.

I plan to submit also conference proceedings

No

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Session Classification: Mikrosymposium 3/3: Data, Automation and the Use of AI

Track Classification: 3. Data, Automation and the Use of AI