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(POS-43) Vertical Beam Size Correction at the Canadian Lightsouce

Tuesday 10 June 2025 18:00 (2 minutes)

The Canadian Light Source (CLS) has thirteen insertion devices (IDs), which are strong magnetic arrays with adjustable setpoints used to produce synchrotron radiation from a circulating beam of electrons. Changes in the ID configurations will affect the vertical beam size of the circulating electrons and can consequently reduce the photon flux at the VESPERS beamline. We discuss our preliminary simulations of the theoretical mechanisms underlying the beam size changes and our related experimental measurements. We will then give an overview of our plans to improve the electron beam stability by correcting the vertical beam size.

Keyword-1

accelerator physics

Keyword-2

electron ring beam dynamics

Keyword-3

electron ring IDs

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