Contribution ID: **874** Contribution code: **MOPS068** Type: **Poster Presentation**

Suppression of emittance variation for the HALF storage ring

Monday 2 June 2025 16:00 (2 hours)

The Hefei Advanced Light Facility (HALF) is a diffraction-limited storage ring light source. The HALF storage ring lattice has relatively long damping times, which can result in substantial variations in beam emittance when the gaps of insertion devices change. In this paper, we study different ways to suppress the emittance variation of the HALF storage ring, including the usage of damping wigglers in long straight sections, wigglers in short dispersive straight sections and leaked dispersion in long straight sections. The effectiveness of combining different methods is also examined.

Footnotes

Paper preparation format

LaTeX

Region represented

Asia

Funding Agency

Work supported by National Natural Science Foundation of China (No.12205299)

Author: LIU, Xiaoyu (University of Science and Technology of China)

Co-authors: XU, Jianhao (University of Science and Technology of China); YANG, Penghui (University of Science and Technology of China); BAI, Zhenghe (University of Science and Technology of China)

Presenter: LIU, Xiaoyu (University of Science and Technology of China)

Session Classification: Monday Poster Session

Track Classification: MC2: Photon Sources and Electron Accelerators: MC2.A04 Circular Accelerators