Contribution ID: **321** Contribution code: **THP023** Type: **Poster Presentation**

Design Optimization of a Dual Energy Electron Storage Ring Cooler for Improved Cooling Performance

Thursday 14 August 2025 16:00 (2 hours)

A dual energy electron storage ring cooler was proposed to maintain a good hadron beam quality against intra-beam scattering and all heating sources in a collider. This configuration has two energy loops. Electron beam in the low energy loop extracts heat away from the hadron beam through Coulomb interaction, while electron beam in the high energy loop loses heat through its intrinsic synchrotron radiation damping. Early studies of this concept show promising results and demonstrate its validity. This paper presented further optimization of optics design and parameters, and evaluation of improved cooling performance.

Please consider my poster for contributed oral presentation

No

Would you like to submit this poster in student poster session on Sunday (August 10th)

No

Footnotes

Funding Agency

Work supported by UT-Battelle, LLC, under contract DE-AC05-00OR22725 and by Jefferson Science Associates, LLC, under contract DE-AC05-06OR23177.

I have read and accept the Privacy Policy Statement

Yes

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Session Classification: THP: Thursday Poster Session

Track Classification: MC2 - Photon Sources and Electron Accelerators