Contribution ID: **141** Contribution code: **MOP096** Type: **Poster Presentation**

Upgrade to fixed and translating scintillation-based loss detector system in the Fermilab Drift Tube Linac

Monday 11 August 2025 16:00 (2 hours)

The closed-off structure of the Fermilab Drift Tube Linac precludes a robust array of instrumentation from directly monitoring the H- beam that is accelerated from 750 keV to 116 MeV. To improve beam tuning and operational assessment of Drift Tube Linac performance, scintillator-based loss monitors were previously installed along the exterior of the first two accelerating cavities to assess low energy beam losses. Here we present a recent upgrade to the loss monitor system, including significant improvements in analog signal processing to address baseline-interfering noise; digitization of the signals to enable regular operational use and tuning; and a new remote operation upgrade of the translating loss monitor with precise positioning of the loss monitor along its nine-foot track. Data from the fixed and translating detectors collected under varying beam conditions validate the utility of the upgrade.

Please consider my poster for contributed oral presentation

Yes

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

No

Footnotes

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I have read and accept the Privacy Policy Statement

Yes

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