Contribution ID: **148** Contribution code: **TUP058** Type: **Poster Presentation**

Laser Control of Electron Beams for Future Colliders

Tuesday 12 August 2025 16:00 (2 hours)

We explore the possibility of using lasers to control the bunch intensity of electron and positron beams in high-energy colliders through Compton backscattering. We also investigate the use of hollow-core lasers for electron and positron beam collimation. This technology would allow for much higher beam intensities at colliders without the risk of damage to a physical collimation system.

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

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

Author: GESSNER, Spencer (SLAC National Accelerator Laboratory)

Presenter: GESSNER, Spencer (SLAC National Accelerator Laboratory)

Session Classification: TUP: Tuesday Poster Session

Track Classification: MC1 - Colliders and other Particle and Nuclear Physics Accelerators