Contribution ID: **39** Contribution code: **MOYD03** Type: **Invited Oral Presentation**

Recent Developments for a High-Energy Linear Collider

Monday 11 August 2025 12:00 (30 minutes)

As part of the European Strategy in Particle Physics Update (ESPPU) the particle physics community is evaluating the options for the next flagship project at CERN. Immense interest in exploring the physics of the Higgs sector and the potential for discovering new physics at high energy is at the core of our motivation for pursuing the next particle collider. The Linear Collider Vision collaboration is exploring how this physics can be pursued with a linear collider facility (LCF) at CERN. A LCF with polarized electron and positron beams, reaching energies of up to about 1 tera electron volt (TeV), would offer a rich program to explore the Higgs boson, the top quark and perform search for new physics in a way that is highly complementary to HL-LHC. Technology upgrades could push this energy reach even higher. In this talk we will present recent developments in linear colliders and technical challenges of implementing a linear collider at CERN. An overview of the Linear Collider Vision and LCF @ CERN inputs to the ESPPU will be presented.

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: NANNI, Emilio (SLAC National Accelerator Laboratory)

Presenter: NANNI, Emilio (SLAC National Accelerator Laboratory)

Session Classification: Colliders and other Particle and Nuclear Physics Accelerators (Invited)

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