CAS course on Basics of Accelerator Physics and Technology, 10- 14 March 2025, Ferney-Voltaire, France



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## **Future Linear Colliders**

Friday 14 March 2025 13:55 (1 hour)

A Higgs factory is considered the highest-priority next collider in the EPPSU 2020 strategy update. Two linear colliders projects, the Compact Linear Collider (CLIC) and the International Linear Collider (ILC), currently under study are among the candidates being considered. CLIC uses X-band normal conducting technology operated at 70-100 MV/m, while ILC is based on Super-Conducting RF structures at 31.5 MV/m. Both can be upgraded to multi-TeV collisions. Although the linacs accelerating the particles use different RF technologies they share similar challenges, for example related to nanobeams, injectors and positron production. The talk will summarize recent developments and the current status of the two projects, including their baselines parameters, on-going technology and performance studies, near future plans and international planning.

Presenter: STAPNES, Steinar (CERN)