

FCC-ee Collider Design Overview

Thursday 18 July 2024 09:24 (18 minutes)

In response to the directives of the 2020 European Strategy for Particle Physics (ESPP), CERN, in collaboration with international partners, is exploring the feasibility of an energy-frontier, 100 TeV hadron collider, including, as an initial stage, a high-luminosity circular electron-positron collider serving as Higgs and electroweak factory.

This effort builds upon the 2019 conceptual design reports of the Future Circular Collider (FCC) study. Currently, the FCC Feasibility study, spanning over five years, aims at providing conclusive inputs to the next update of the ESPP, with a focus on implementing these accelerators inside a 90.6 km tunnel in the Lake Geneva basin.

The ongoing study aims to validate tunnel construction, refine collider and injector designs, develop organization and funding models, and conduct R&D on critical machine components. This presentation will provide an overview of the study status and the latest advancements on the electron-positron collider FCC-ee.

Alternate track

I read the instructions above

Yes

Primary author: ANDRE, Kevin (CERN)

Co-authors: ZIMMERMANN, Frank (CERN); Dr OIDE, Katsunobu (Universite de Geneve (CH)); BENEDIKT, Michael (CERN)

Presenter: ANDRE, Kevin (CERN)

Session Classification: Accelerators: Physics, Performance, and R&D for future facilities

Track Classification: 11. Accelerator: Physics, Performance, and R&D for Future Facilities