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Perspectives on the Future of High-Energy Collider Physics

After the discovery of the Higgs boson at the LHC particle physics has entered a new era. With the successful data taking over the past decade, many properties of this particle have been established. Despite this, important questions remain open and call for experimental exploration. The Higgs field itself is linked to deep structural questions of the Standard Model of particle physics such as flavour, naturalness and the stability of the vacuum. In addition, the nature of the dark matter in the universe, the origin of the matter-antimatter asymmetry and of the neutrino masses remain open.

Over the past years, within the European Strategy for Particle Physics process, the future of European particle physics has been debated, and recommendations have been expressed for the Future Circular Collider (FCC) as the next large flagship collider project at CERN.

In this talk the European Strategy process and the rationale behind the recommendations is discussed together with the physics potential of the FCC. In addition, an overview of the current strategic global planning for particle physics, including areas beyond collider physics, is given.

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