

New Trends in High-Energy Physics



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Future e^+e^- Colliders at the Energy Frontier

A new giant electron-positron collider, operating at energy frontier, is a natural proposal in order to push particle physics into new regime of precise measurements, in particular in the sectors of electroweak observables and Higgs boson parameters. The four projects of such accelerators: two linear (ILC and CLIC) and two circular (FCC and CEPC) are currently in various stages of development. The next few years will be critical as far the decisions about the construction of such colliders, in particular in view of the update of European HEP strategy and expectations of important decisions from Japan, China and USA.

The talk will discuss the motivation and very attractive physics program for new e^+e^- colliders, spanning in particular perspectives in Higgs, electroweak and flavour sectors together with expectations of searches for New Physics. The relevant aspects and challenges of the accelerators and detectors together with the proposed schedules of construction and operation will be discussed.

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