

Overview of the Future CEPC-SppC Project in China

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A circular electron-positron collider for the measurement of Higgs boson was proposed after the mass of Higgs was found in mid July 2012. Compared to the linear collider, a ring-based factory like machine have some advantages of matured technologies, and the most important issue is that the e^-e^+ ring could be converted to a proton-proton collider to discover new particles or to open a new physics regime. Such a huge collider was not only proposed in CERN as TLEP and FCC thereafter, but also in IHEP, China, as CEPC-SppC. Efforts are done on this ring with 50-km in circumference.

In this talk, the possible future project of CEPC-SppC will be described from the machine, detector, and its possible usage in other fields, to the possible site, schedule and organization. Studies on beam physics and main technologies in the ring-based accelerator, are being carried on towards the R&D phase of some key technologies in the near future.