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STCF detector design and R&D progress

Thursday 18 July 2024 14:30 (17 minutes)

The Super Tau-Charm Facility (STCF) is a high-luminosity electron-positron collider proposed in China. It will operate in an energy range of 2-7GeV with a peak luminosity higher than 0.5*10ˆ35 cmˆ2 sˆ-1. The STCF physics goals require efficient and precise reconstruction of exclusive final states produced in the e+e- collisions. This places stringent demands on the performance of the STCF detector. It must provide maximal solid angle of coverage, high efficiency and good resolution for both charged and neutral particles of low momentum or energy, excellent hadron identification in a large momentum range, and powerful muon identification capability. The STCF detetor conceptual design has been published (available at arXiv:2303.15790). A full detector R&D program has been established and funded, and is going full steam ahead. This report presents the conceptual design and R&D progress of the STCF detector.

Alternate track

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Yes

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