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Progress in CEPCSW Core Software

Saturday, 26 October 2024 09:00 (20 minutes)

The CEPCSW is the offline data processing and analysis software being developed for the CEPC experiment, based on the Key4hep common HEP turnkey software stack. It utilizes Gaudi as its underlying framework, Edm4hep as its event data model, and DD4hep for managing detector geometry. The CEPCSW has been used to optimize detector performance and maximize physics potential, particularly in the studies related to the CEPC reference detector. This contribution will present the latest developments in the CEPCSW core software, including Gaussino-based simulation, beam-related background simulation, and the analysis framework. Additionally, it will highlight progress in various R&D activities, such as machine learning-based simulations and track reconstruction with ACTS.

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