Contribution ID: **1001**   Type: **Parallel session talk**

CEPC-on-Gaussino: an application of Gaussino simulation framework for CEPC experiment

Saturday 20 July 2024 11:36 (17 minutes)

The Circular Electron Positron Collider (CEPC) is a future Higgs factory to measure the Higgs boson properties. Like the other future experiments, the simulation software plays a crucial role in CEPC for detector designs, algorithm optimization and physics studies. Due to similar requirements, the software stack from the Key4hep project has been adopted by CEPC. As the initial application of Key4hep, a simulation framework has been developed for CEPC based on DD4hep, EDM4hep and k4FWCore since 2020. However, the current simulation framework for CEPC lacks support for the parallel computing. To benefit from the multi-threading techniques, the Gaussino project from the LHCb experiment has been chosen as the next simulation framework in Key4hep. This contribution presents the application of Gaussino for CEPC. The development of the CEPC-on-Gaussino prototype will be shown and the simulation of a tracker detector will be demonstrated.

Alternate track

I read the instructions above

Yes

Primary author: LIN, Tao (Chinese Academy of Sciences (CN))

Co-authors: FU, Chengdong; Mr ZOU, Jiaheng; Dr LI, Teng (Shandong University, CN); Dr LI, Weidong (IHEP, Beijing); HUANG, Xingtao; Prof. DENG, Ziyan

Presenter: LIN, Tao (Chinese Academy of Sciences (CN))

Session Classification: Computing and Data handling

Track Classification: 14. Computing, AI and Data Handling