CEPC Weekly Meeting (2024-11-26)

❖ Weekly software meeting

- https://jupyter.ihep.ac.cn/faX6jrBATtGiKBfVbkLH5Q

❖ Software progress

- **Calorimeter:** 1) The reconstruction algorithms for both the barrel and end-cap are now integrated into the same framework. 2) New digitization model for HCAL 3) Performance validation and optimization. 4) The memory footprint increased to ~4 GB after adding the end-cap.

- **Muon Detector:** 1)The reconstruction algorithm is being implemented.

- **Tacking in silicon detectors:** The discrepancy in reconstruction performance was caused by a large step size in the Geant4 simulation.

- **Tracking with ACTS:** The new TDR geometry has been integrated, and the reconstruction efficiency is fine; however, there is a discrepancy in the phi direction. It's found the material distribution does not match between Geant4 and ACTS. (solved)

- To be done: 1) event mixing within a time window (Tao Lin)

    2) event display (Zhengyun's student)

❖ The writing of Chapter 13 is ongoing