

General Remarks for the Physics Performance

0, The performance requirement should be made explicit and integrated at Chapter 3.

These performance requirements plays a key role to synchronize the entire detector CDR. It should serve as the reference for the physics requirement to each sub detector system. If applicable, sub-detector sections should present evidences that could satisfy these requirements.

1, The detailed simulation/study to the Physics Performance is appreciated.

In general, the current study at simulation level leads to a clear description of the physics potential/physics requirement at the Higgs operation.

Several key points still need to be addressed, i.e,

EW

Systematic Control

Passive cooling operation

However, dedicated input is needed to give much solid conclusions. i.e., a complete description of the DAQ and its power consumption is needed to understand the Passive cooling performance.

The Current Simulation is based on Benchmark Detector Geometry. (TPC + Si/W ECAL + RPC HCAL)

Thus, once we discuss the performance of other technologies, i.e, Scintillator ECAL, we cannot refer to the Benchmark Detector geometry.

2, The potential on flavor physics is not fully evaluated. Which could/should be set as one of the future task. In principle (as agreed by Sasha), the entire history of jet fragmentation cascade could be traced – leads to great physics potential & is certainly an interesting topic to pursue in the future.