



CEPC Muon Detector --- Ref-TDR status

Xiaolong Wang (Fudan), Hengne Li (SCNU)
on behalf of the Muon Detector Group
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Current Focus: TDR Edition

- Main structure and editors
 - Software and simulation: Hengne Li
 - Electronics: Jie Zhang
 - Mechanics and testing: Zhi Wu
 - Backgrounds: Junhao Yin
 - RPC option: Jun Guo, Yuguang Xie
 - Overall: Xiaolong Wang

Current Focus: TDR Edition

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■ Current status:

- A main structure finished.
- Materials are collected.
- Some text are written in separate tools such as MS word and other online docs, to be translated into latex.

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Update: Simulation and Reconstruction

■ Simulation:

- Geometry codes optimization:
 - Large memory occupation noticed in physics production, due to overly detailed- muon geometry description codes;
 - Memory reduced from ~4 GB -> ~3GB

■ Digitization:

- Endcap digitization added.
- Codes are merged.

■ Reconstruction:

- Starting with a simplified track fit algorithm, extrapolating the “Complete Tracks” to the muon system assuming a straight line extension.
- Presumably sufficient for physics performance studies for the Ref-TDR.

Thank you!