

Conceptual mechanical design of CEPC detector magnet

Wednesday, 23 October 2024 22:12 (1 minute)

A large-scale low-temperature superconducting magnet is proposed for the future detector of Circular Electron Positron Collider (CEPC) at the Institute of High Energy Physics, Chinese Academy of Sciences (IHEP,CAS). The center magnetic field of the magnet is 3 Tesla, the length, inner and outer diameter of the magnet is 9.05 m, 7.07 m and 8.47 m, respectively. The length, inner and outer diameter of the coil is 8.15 m, 7.3 m and 7.82 m, respectively. The weight of the cold mass is about 140 t. This poster presents the mechanical design of the support structure of the cold mass and the cryostat of the magnet.

Primary author: Mr HOU, Zhilong (高能所)

Co-authors: ZHAO, Ling (高能所); NING, Feipeng (IHEP); WANG, menglin

Presenter: Mr HOU, Zhilong (高能所)

Session Classification: Poster

Track Classification: Detector and System: 11: MDI & Integration