Contribution ID: **262** Type: **Poster**

Thu-Mo-Po.02-01: Conceptual Mechanical Design and Analysis of CEPC Detector Magnet

Thursday 3 July 2025 08:45 (2 hours)

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 central 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 weight of the cold mass is about 185 t. This paper presents the mechanical design of the support structure of the cold mass and the cryostat of the magnet.

Author: HOU, Zhilong

Co-authors: ZHAO, Ling; Dr NING, Feipeng; WANG, MengLin (Institute of High Energy Physics, CAS)

Presenter: HOU, Zhilong

Session Classification: Thu-Mo-Po.02 - Design and Development of Accelerator Magnets I