



Contribution ID: 838 Contribution code: TUE-PO1-113-05

Type: Poster

## Magnetic Measurements on the Twin Aperture Orbit Correctors for HL-LHC at IMP

*Tuesday 16 November 2021 13:15 (20 minutes)*

The Large Hadron Collider (LHC) upgrade, called High Luminosity LHC (HL-LHC) is planned for the next decade. A set of twin aperture beam orbit correctors positioned on the approaches to the ATLAS & CMS experiments will be developed. Two institutes IHEP (Institute of High Energy Physics), IMP (Institute of Modern Physics), and one company in China will work on the magnet R&D and series production. IMP in charge of the performance test both at ambient and cryogenic temperatures, the first China-Built model (MCBRDP2) has been tested recently. In this paper, the test setup for magnetic measurements, the 2.3m-long rotating coil probe, and the instrumentation being used at IMP are presented. The measurement results, in terms of field quality, effects of iron saturation, as well as magnetic cross-talk are discussed.

**Primary author:** YANG, Wenjie (Institute of modern physics, Chinese academy of sciences)

**Co-authors:** NI, Dongsheng (Institute of Modern Physics Chinese Academy of Sciences); MEI, Enming (IM-PCAS); YANG, Jing (Institute of Modern Physics Chinese Academy of Sciences); MA, Lizhen (Institute of Modern Physics, Chinese Academy of Sciences); YAO, Qinggao (Institute of Modern Physics, Chinese Academy of Sciences); WU, Wei (Institute of Modern Physics, Chinese Academy of Sciences); FENG, Wentian (Institute of Modern Physics, CAS); Mr OU, Xianjin

**Presenter:** YANG, Wenjie (Institute of modern physics, Chinese academy of sciences)

**Session Classification:** TUE-PO1-113 HL-LHC Accelerator Magnets III: NbTi