## TIDM<sup>2</sup> x SC Magnets Lecture Series 2025



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## **Fusion coil testing at ASIPP**

Tuesday 17 June 2025 16:30 (1 hour)

About the lecture

This lecture will present recent advances in cryogenic test facilities for fusion superconducting (SC) magnet technology developed at the Institute of Plasma Physics, Chinese Academy of Sciences (ASIPP). It will cover the comprehensive test methodologies for SC materials, full-size conductors (including 100 kA-class cable-in-conduit conductors), and large-scale fusion magnets. Key focus areas include electromagnetic performance validation under multi-field coupling, thermal-hydraulic characterization, quench detection systems, and high-voltage insulation testing. The talk will highlight applications for major international projects (CFETR, ITER, EAST), supported by case studies such as the 2024 CFETR Central Solenoid Model Coil (CSMC) test campaign. About the speaker

Zichuan Guo specializes in applied superconductivity for fusion energy. He earned his doctor degree from the University of Science and Technology of China (USTC). Since 2017, he has worked on SC conductor mechanical testing, cryogenic instrumentation, and magnet performance validation at ASIPP. Currently, he oversees SC conductor manufacturing and fusion magnet commissioning projects at ASIPP's Applied Superconductor Engineering Technology Laboratory, driving next-generation fusion reactor development.

Presenter: GUO, Zichuan (institute of plasma pgysics chinese academy of sciences)