



Contribution ID: 263

Type: **Regular 15 minutes Oral Presentation**

## **Electromagnetic Design of HTS insert for NMR Magnet in Consideration of Screening Currents**

*Thursday 31 August 2017 11:00 (15 minutes)*

A 25 Tesla superconducting magnet for NMR will be fabricated in the Institute of Electrical Engineering, Chinese Academy of Sciences. The magnet consists of HTS insert and LTS outsert with the central field contribution of 10 T and 15 T, respectively. Based on the features of HTS insert with respect to winding geometry and screening current, an electromagnetic design method is proposed. High homogeneous central field can be obtained after the lock of the screening current distribution in the HTS tape. It makes the shimming work afterwards much easier with no attempt of elimination of the screening current.

### **Submitters Country**

China

**Authors:** Dr LI, Yi (Intitute of Electrical Engineering, Chinese Academy of Sciences); Dr WANG, Lei (Intitute of Electrical Engineering, Chinese Academy of Sciences); Dr ZHU, Xuchen (Intitute of Electrical Engineering, Chinese Academy of Sciences); WANG, Qiuliang

**Presenter:** Dr LI, Yi (Intitute of Electrical Engineering, Chinese Academy of Sciences)

**Session Classification:** Thu-Mo-Or31

**Track Classification:** C3 - HTS Insert and Model Magnets