

数学与系统科学研究院

计算数学所学术报告

报告人: **Dr. Jae Kyu Choi**

(上海交通大学自然科学研究院)

报告题目:

**Inverse Problem in Medical Imaging  
and Beyond**

邀请人: 陈冲 博士

报告时间: 2018年6月22日(周五)

下午 16:00-17:00

报告地点: 科技综合楼三层

311 报告厅

## **Abstract:**

Medical imaging is the technique and process of visualizing the anatomy of a body for clinical analysis and medical intervention, as well as the function of some organs and tissues. However, the reconstructed image in general suffers from the severe artifacts due to the ill posed nature of underlying linear inverse problem. In this talk, I will briefly introduce some related topics in the inverse problem in medical imaging based on my works. First, I will give the mathematical analysis of the inverse problem in quantitative susceptibility mapping. In the following, I will present "how to solve inverse problem" in the following two aspects. One is the edge driven wavelet frame based image restoration model to restore/enhance the key features in a given image, and the other is the harmonic incompatibility removal (HIRE) susceptibility reconstruction model designed to remove the incompatibility in the measured data which is other than the additive noise.

**欢迎大家参加！**