报告人： **Prof. Ruchi Guo**

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报告题目：

Immersed Finite Element Methods and the Applications in Interface Inverse Problems

邀请人： 曹礼群 研究员

报告时间：**2019** 年 **7** 月 **15** 日（周一）

下午 **16:00-17:00**

报告地点： 数学院南楼七层

702 教室

Abstract：

Interface problems and the related inverse problems widely appear in many engineering applications. These problems in general involve multiple materials coupled through interfaces which cause challenges to numerical methods. In this talk, I will firstly introduce the main ideas of immersed finite element (IFE) methods to solve interface problems with optimal accuracy on unfitted meshes which can be generated independently with the interface. Then I will describe a parameterized shape optimization algorithm based on IFE methods to solve a group of interface inverse problems including electrical impedance tomography (EIT) and elastography. A set of numerical experiments are shown to demonstrate the strength and versatility of the proposed method.

欢迎大家参加！