

数学与系统科学研究院

计算数学所学术报告

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报告题目:

**A Coarse Model Filter Reduced Basis  
Approach to Parametric Integral  
Equation Problems**

邀请人: 邸亚娜 副研究员

报告时间: 2018 年 12 月 26 日 (周三)

上午 11:00-12:00

报告地点: 科技综合楼三层

311 报告厅

## **Abstract:**

**The reduced basis method has been widely used in fast solving the parametric PDEs for some real-time problems and many-queries problems. In this talk, we extend the reduced basis method to parametric integral equation problems, and develop simple and general-purpose a reduced basis approximation technique for linear elliptic integral operators. To achieve it, we first selected the reduced basis functions cheaply based on the numerical solutions on a coarse grid. Then we combined the random sampling technique and the interpolation technique to reconstruct integral operators under the reduced basis. Numerical results demonstrate the efficiency of our method.**

**欢迎大家参加！**