

数学与系统科学研究院

计算数学所学术报告

报告人: 姜立建 教授

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报告题目:

**Variable-separation Methods Based
on Low Rank Representation for
Parametric PDEs**

邀请人: 曹礼群 研究员

报告时间: 2017 年 8 月 25 日 (周五)

上午 10:30-11:30

报告地点: 数学院南楼六层

602 教室

Abstract:

In the talk, we present a novel variable-separation method for generic multivariate functions. The idea of the method is applied to obtain the solution in tensor product for parametric PDEs (PPDEs) . The presented variable-separation method has a few advantages over many widely used numerical methods for PPDEs. To improve the efficiency for the method and treat high-dimensional PPDEs, we propose an improved least angle regression algorithm and a hierarchical sparse low rank tensor approximation method. The presented method can be used to solve a variety of PPDEs and parametric saddle point problems.

欢迎大家参加！