

数学与系统科学研究院

计算数学所学术报告

报告人: **Prof. Yanzhao Cao**

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报告题目:

**On exponential convergence of the  
sparse grid spectral method for  
SPDES with random coefficients**

邀请人: 周涛 博士

报告时间: **2013 年 7 月 26 日 (周五)**

**下午 16:00-17:00**

报告地点: 科技综合楼三层 **311**

计算数学所报告厅

## Abstract:

**In this talk, we will discuss fast sparse grid algorithms for SPDES with random coefficients using orthogonal polynomials basis. The main focus will be on the exponential convergence of the sparse grid spectral approximation when the solution of the SPDE is analytic. We shall show that in such a case the use of full grid in general may perform as well as, if not better than, the sparse grid. Conditions under which the sparse grid method can outperform the full grid will be discussed.**

**欢迎大家参加!**