数学与系统科学研究院

计算数学所学术报告

报告人：　**Dr. Tao Zhou**

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报告题目：

Uncertainty quantification for stochastic PDEs

邀请人：　陈志明 研究员

报告时间：**2013** 年 **2** 月 **19** 日（周二）

下午 **14:00~15:00**

报告地点：　科技综合楼三层 **311**

计算数学所报告厅

Abstract:

Stochastic computation has received intensive attention in recent years, due to the pressing need to conduct uncertainty quantification (UQ) in practical computing, Various numerical methods have been developed in the UQ framework. In this talk, we will first review some popular numerical algorithms such as (generalized) polynomial chaos and stochastic collocation. Then, we will introduce two newly introduced approaches, namely, the dynamically orthogonal fields approach and the discrete L^2 projection method. The corresponding numerical analysis will be given. Numerical examples are provided to show the efficiency of the new numerical methods. We will also discuss some possible research directions in the UQ background.

The talk is based on the joint works with Prof. Tao Tang (HKBU), Prof. Fabio Nobile (EPFL), Prof. Dongbin Xiu (Utah) and Dr. Zhen Gao (OUC).

欢迎大家参加！