数学与系统科学研究院

计算数学所系列学术报告

报告人： 廖奇峰 教授

（ 上海科技大学 ）

报告题目：

Flow-based domain-decomposition approaches for uncertainty quantification

邀请人： 明平兵 研究员

报告时间：2021 年 5 月 20 日（周四）

上午 **11:00-12:00**

报告地点： 数学院南楼

802 教室

Abstract：

The domain decomposition uncertainty quantification method (DDUQ) provides a decomposed strategy to conduct uncertainty analysis for complex engineering systems governed by PDEs. In DDUQ, uncertainty analysis on each local component is independently conducted in an ``offline'' phase, and global uncertainty analysis results are assembled using precomputed local information in an ``online'' phase through importance sampling. The performance of DDUQ relies on the coupling surrogates and probability density estimation during the importance sampling procedure. Since coupling surrogates can give high-dimensional interface parameters, we in this work develop flow based interface coupling strategy, which dramatically improve the efficiency of DDUQ.

欢迎大家参加！