数学与系统科学研究院

计算数学所学术报告

报告人：　　刘芳

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报告题目：

Two-scale finite element discretizations for nonlinear eigenvalue problems in quantum physics

邀请人：　戴小英 研究员

报告时间：**2021** 年 **9** 月 **10** 日（周五）

上午 **9:00-10:00**

报告地点：数学院南楼

802 教室

Abstract:

Some two-scale finite element discretizations are introduced and analyzed for a class of nonlinear elliptic eigenvalue problems in quantum physics. It is shown that the solution obtained by the standard finite element method on a one-scale fine grid can be numerically replaced with a combination of some solutions on a coarse grid and some univariate fine grids by two-scale finite element discretizations. Compared with the standard finite element solution, the two-scale finite element approximations save computational cost significantly while achieving the same accuracy. This is a joint work with Pengyu Hou.

欢迎大家参加！