

数学与系统科学研究院  
计算数学所网络学术报告

报告人: **Prof. Liuqiang Zhong**

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报告题目:

**Two level methods for some classes of PDEs**

邀请人: 毛士鹏 研究员

报告时间: **2020 年 11 月 29 日 (周日)**

**上午 9:00-10:00**

报告工具: **腾讯会议 (ID: 757 621 996)**

会议链接:

<https://meeting.tencent.com/s/Cmh7LS66U7Cv>

## Abstract:

First, for nonsymmetric or indefinite linear elliptic PDEs, we obtain the first error estimate in L2-norm for the classical two-grid method, then design and analysis an improved two-grid method by adding one more correction on the coarse space to the classical two-grid method. Secondly, for semilinear elliptic PDEs, we design and analyze a new finite element discretization technique based on iterative two-grid methods. At last, we develop several two-grid methods and two-level additive preconditioners for the Nedelec edge finite element approximation of the time-harmonic Maxwell equations.

**欢迎大家参加！**