数学与系统科学研究院

计算数学所学术报告

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报告题目：

Auxiliary schemes for the discrete operators on de Rham complex

邀请人： 张硕 副研究员

报告时间：2021 年 12 月 9 日（周四）

上午 10:00-11:00

报告地点：数学院南楼

212 教室

Abstract：

The infinite-dimensional kernels of the d^*d operators, for example curl-curl and grad-div operators, cause some difficulties in computing the discrete systems of their related problems with iterative methods. We construct auxiliary schemes for these discrete problems based on Hodge Laplacian on de Rham complex. The source problems, eigenvalue problems and constrained problems are transformed to Laplace-like problems. These transformations make it easy to use the existing iterative methods and preconditioning techniques to solve these discrete problems.

欢迎大家参加！