

数学与系统科学研究院  
计算数学所网络学术报告

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报告题目:

**Helicity-conservative discretization  
for MHD systems**

邀请人: 毛士鹏 研究员

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下午 16:00-17:00

报告工具: 腾讯会议 (ID: 132422031)

## **Abstract:**

**The magnetohydrodynamics (MHD) systems have several important conservation laws, e.g., the magnetic Gauss law and the conservation of energy and (magnetic, cross, hybrid) helicity in the ideal limit. These conserved quantities encode various kinds of intrinsic symmetry of the equations. In this talk, we first review the conservative properties of the Navier-Stokes and MHD systems. Then we construct finite element methods that precisely preserve these properties. We construct solvers that are robust with physical and discretization parameters.**

**欢迎大家参加！**