# 数学与系统科学研究院

# 计算数学所学术报告

报告人：**Prof. Linghua Kong**

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报告题目：

**A novel kind of efficient symplectic schemes for Klein-Gordon-Schrödinger equation**

邀请人：　唐贻发 研究员

报告时间：**2019** 年 **5** 月 **26** 日（周日）

下午 **14:30-15:30**

报告地点：　数学院南楼七层

**702** 教室

**Abstract:**

**In this talk, we are mainly interested in presenting a family of high order compact symplectic (S-HOC) schemes for the Klein-Gordon-Schrödinger (KGS) equation. At first, we discretize the KGS in space by high order compact methods under Hamiltonian framework. Then the semi-discretized system is approximated in time by the Euler midpoint scheme which preserves the symplectic structure of the original system. The conserved quantities of the scheme, including symplectic structure conservation law, charge conservation law and energy conservation law, are discussed. Finally, some numerical experiments are presented to numerically validate the theoretical analysis.**

欢迎大家参加！