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：

Quantum simulation algorithms for non-Markovian open quantum systems

邀请人：　明平兵 研究员

报告时间：**2021** 年 **12** 月 **17** 日（周五）

上午 **10:00-11:00**

报告工具：腾讯会议（**ID：439 890 230**）

Abstract:

Non-Markovian open quantum systems are the most general dynamics when the quantum system is coupled with a bath environment. The most immediate obstacle for studying such systems is the lack of a universal succinct description of their dynamics. In this work, we fill the gap of studying such dynamics by 1) providing a succinct representation of the dynamics of non-Markovian open quantum systems with quantifiable error, and 2) developing an efficient quantum algorithm for simulating such dynamics with cost O(t polylog(t/e)) for evolution time t and precision e. This is joint work with Chunhao Wang.

欢迎大家参加！