

数学与系统科学研究院

计算数学所学术报告

报告人: **Prof. Dan Edidin**

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报告题目:

**Uniqueness for FROG phase  
retrieval**

邀请人: 许志强 研究员

报告时间: 2017 年 6 月 12 日 (周一)

上午 10:00-11:00

报告地点: 科技综合楼三层

311 报告厅

## **Abstract:**

**A popular technique for measuring ultra-short laser pulses is through the method of Frequency Resolved Optical Gating (FROG). Mathematically, a 2D intensity matrix (the FROG trace) is measured from the product of the pulse with its delayed replica. We show that, that modulo the action of a natural group of ambiguities, a band limited signal can be uniquely recovered from its FROG trace. Unlike typical phase retrieval problems, the entries of the FROG matrix are quartic, rather than quadratic functions of the input. This is joint work with Tamir Bendory and Yonina Eldar.**

**欢迎大家参加！**