

数学与系统科学研究院

计算数学所学术报告

报告人: **Dr. Zhiqiang Xu**

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报告题目:

**The recovery of the sparse signal
without the phase**

邀请人: 袁亚湘 院士

报告时间: **2012 年 4 月 10 日 (周二)**

下午 15: 30-17:00

报告地点: 科技综合楼三层 **311**

计算数学所报告厅

Abstract:

In compressed sensing, one can recover a s -sparse signal x from

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$$y = Ax \text{ in } \mathbb{C}^m,$$

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by solving ℓ_1 minimization problem. However, in many applications, it is difficult to measure the phase of the signal. So, rather than knowing $y = Ax$, we only know the squared magnitude of the inner product between x and a_i , i.e.

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$$b_i = |y_i|^2 = |\langle x, a_i \rangle|^2, \quad i=1, \dots, m.$$

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Then, one would like to recover x from $b \text{ in } \mathbb{R}^m$ and the problem is known as the phase retrieval problem.

In this talk, I will introduce the phase retrieval problem and show many interesting research problems from it. Moreover, I will show some problems from compressed sensing with quantization measurement.

欢迎大家参加!