

数学与系统科学研究院

计算数学所学术报告

报告人: **Prof. Zhijun Wu**

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报告题目:

**Evolution of Social Cliques**

邀请人: 袁亚湘 院士

报告时间: **2014 年 7 月 8 日 (周二)**

**下午 15:30-16:30**

报告地点: **科技综合楼三层 311**

**计算数学所报告厅**

## **Abstract:**

**Species make contacts and form social cliques. The latter may have great impacts on the evolution of a population, such as preserving certain genetic features, sharing knowledge and information, preventing invasions, etc. In this talk, I will show that the evolution of social cliques in a given population can be modeled as an evolutionary game, with species competing for partnerships and forming optimal cliques. I will show in particular that the problem can in fact be modeled as a symmetric evolutionary game, and its optimal solution can then be obtained and analyzed by solving a generalized knapsack problem. I will show the structure of the optimal cliques and discuss their connections and stabilities.**

**欢迎大家参加!**