

运筹学与信息科学研究所

Department of Operations Research and Information Science

学术报告

题目: Approximating Partition in Near-Linear Time

报告人: 张国川 教授, 浙江大学计算机科学与技术学院

时间: 3月22日(星期五) 14:00 - 15:00

地点: 数学院南楼 N602

摘要: Recently, faster algorithms for knapsack-like problems have received much attention, largely due to new techniques in sparse convolution and additive combinatorics. In this talk, we will present an FPTAS for the classical partition problem, which runs in near linear time in both the number of items and in $1/\epsilon$. This is the best possible (up to a logarithmic factor) assuming SETH (Strong Exponential Time Hypothesis). Our result is obtained by solving a more general problem of weakly approximating subset sum. Joint with Lin Chen, Jiayi Lian, and Yuchen Mao.

报告人简介: 张国川, 浙江大学计算机科学与技术学院, 教授, 博士生导师, 中国运筹学会副理事长; 1995年博士毕业于中国科学院应用数学所。研究兴趣包括组合优化近似算法、在线算法和机制设计。担任 Annals of Operations Research, Journal of Scheduling 等刊物编委, 国际算法与计算国际研讨会 (ISAAC) 顾问委员会委员。曾获中国运筹学会科学技术奖-运筹研究奖。