

数学与系统科学研究院

计算数学所学术报告

报告人: **Prof. Alexei Shadrin**

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报告题目:

**The Landau--Kolmogorov problem
and numerical differentiation
formulae**

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报告时间: **2016年1月5日 (周二)**

下午 15:30~16:30

报告地点: 科技综合楼三层

311 报告厅

Abstract:

The Landau--Kolmogorov problem is to bound the norm of the intermediate derivative $f^{(k)}$ for $1 \leq k \leq n-1$ when the bounds for the norms of the function f and of its higher derivative $f^{(n)}$, are given. This problem is closely related to finding optimal numerical approximations to the k -th derivative of an n times differentiable function f using N bits of information about f . We will overview existing results, and give an outline of our recent proof of Karlin's conjecture which deals with the case of functions given on a finite interval.

欢迎大家参加！