



复旦大学数学科学学院 数学综合报告会

报告题目: **The Landau--Kolmogorov problem and numerical differentiation formula**

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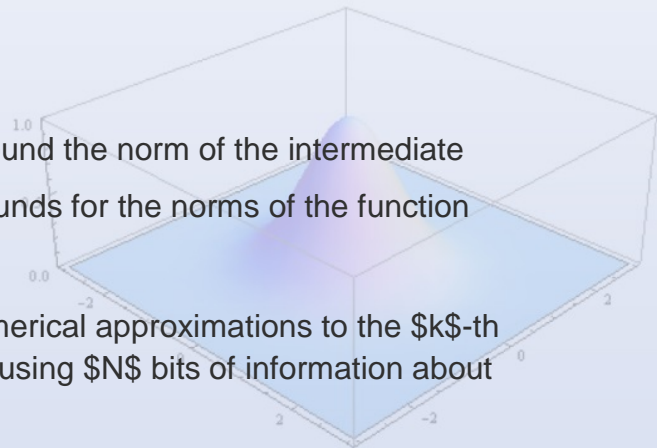
报告时间: 2015-12-22 星期二 15:30--16:30

报告地点: 光华东主楼 1801

摘要: 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.



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