



## 复旦大学数学科学学院 数学综合报告会

报告题目: The logarithmic Sobolev inequality and its nonlinear analogues

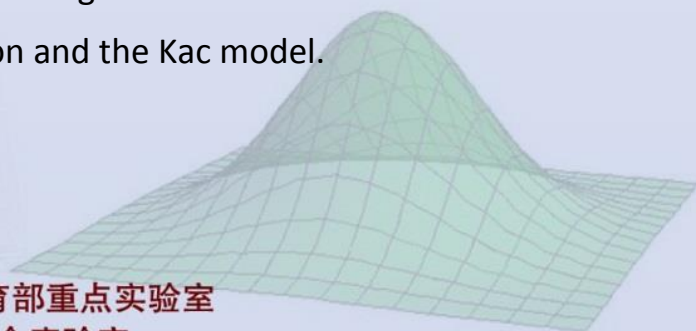
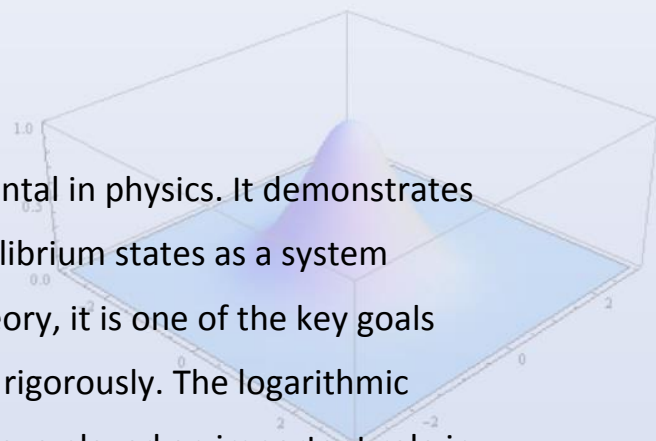
报告人: 张朝恩 副教授 (哈尔滨工业大学)

时间: 2026-05-16 星期六 10:30--11:30

地点: 光华楼东主楼 2001

### 报告摘要:

The entropy producing phenomenon is fundamental in physics. It demonstrates the tendency of non equilibrium states to equilibrium states as a system evolves. In the mathematical study of kinetic theory, it is one of the key goals to describe this phenomenon quantitatively and rigorously. The logarithmic Sobolev inequality and its nonlinear analogues have played an important role in this direction. In this talk, I will present results and questions about this functional inequality approach. I will start by introducing basic facts and some related questions/ progresses about logarithmic Sobolev inequality. Then I will speak about its nonlinear analogues for the following models: the McKean-Vlasov equation, the Landau equation and the Kac model.



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