

## Global low-regularity solutions to the non-cutoff Boltzmann equation in $\mathbf{R}^3$

报告人: 段仁军 教授(香港中文大学)

**报告时间:** 2022 年 4 月 25 日下午 15:30-16:30

腾讯会议 ID: 533 581 740

链接: https://meeting.tencent.com/dm/B3eQ913Ms1Q5

**报告摘要:** A class of low-regularity solutions via the Wiener algebra for the non-cutoff Boltzmann equation on the torus was previously introduced in collaboration with Liu, Sakamoto and Strain. In the talk, I will further report how to extend the result to the case of the whole space. In this case, we develop an  $L^1 - L^\infty$ interplay technique in the Fourier space to overcome the weaker macroscopic dissipation due to diffusion phenomenon in contrast to the torus case. The key is to employ time-weighted estimates motivated from viscous conservation laws. Joint work with Shota Sakamoto and Yoshihiro Ueda.

## 报告人简介:

Professor Duan received his PhD in 2008 at City University of Hong Kong. After then, he spent two years as a postdoctoral fellow at RICAM, Austrian Academy of Sciences. From 2010 to present, he has been in the Chinese University of Hong Kong. He was appointed to be an Associate Professor in 2018. His research interest mainly focuses on kinetic theory, in particular, Boltzmann equation and related kinetic

equations.

欢迎各位老师和同学参加!

## 西北大学数学学院、非线性科学研究中心 2022年4月22日