



西北大学
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Well-posedness and regularity for 3D compressible Navier-Stokes equations

报告人: 张剑文 教授 (厦门大学)

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链接: <https://meeting.tencent.com/dm/xizbiW3J07iW>

报告摘要: This talk is concerned with the Cauchy problem of Navier-Stokes equations for compressible viscous heat-conductive fluids. For less regular data and weaker compatibility condition than those proposed in the previous works, we prove the existence of local-in-time solutions belonging to a larger class of functions in which the uniqueness can be shown to hold. The local solution is in fact a classical one away from the initial time, provided the initial density is more regular. We also establish the global well-posedness of classical solutions with large oscillations and vacuum in the case when the total initial energy is suitably small. The exponential decay estimates of the global solutions are obtained.

报告人简介:

张剑文，厦门大学数学科学学院教授、博士生导师，主要研究领域为流体力学中的非线性偏微分方程（组），研究兴趣包括解的适定性理论、长时间性质、小参数极限和边界（初始）层效应，在 SIAM J. Math. Anal., J. Nonlinear Science, M3AS, JDE, Nonlinearity 等国内外期刊发表 40 多篇论文，连续主持 3 项国家自然科学基金面上项目，参与国家自然科学基金重点项目，曾作为主要合作者获福建省科技进步奖二等奖，作为主要参与人获国家级教学成果二等奖、福建省教学成果特等奖。

欢迎各位老师和同学参加!

西北大学数学学院
2021 年 12 月 7 日