



复旦大学数学科学学院 数学综合报告会

报告题目: Decay properties of solutions toward shock waves of the scalar conservation law with linear and p-Laplacian viscosity

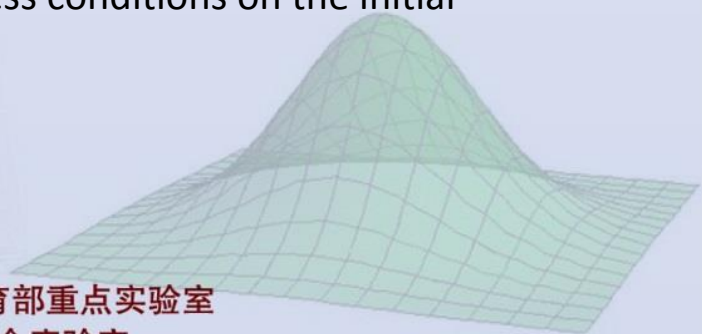
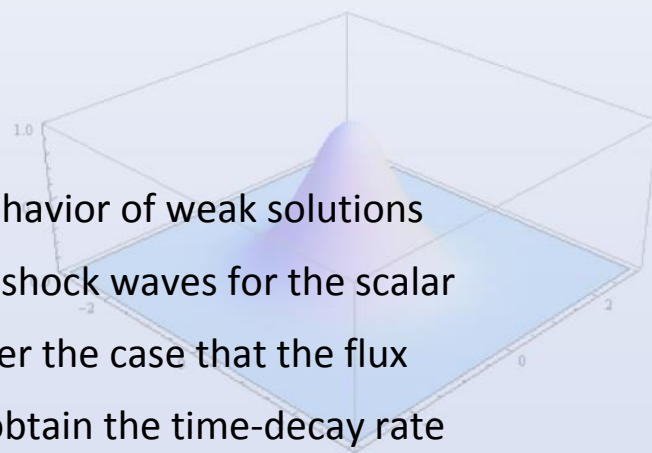
报告人: 刘也驰 博士 (湖南师范大学)

时间: 2025-11-05 星期三 10:00-11:00

地点: 光华东主楼1801

报告摘要:

In this paper, we discuss the asymptotic behavior of weak solutions to the Cauchy problem toward the viscous shock waves for the scalar viscous conservation law. We firstly consider the case that the flux function is the quadratic Burgers flux and obtain the time-decay rate in L^∞ -norm for the cases with degenerate p-Laplacian viscosity and with linear viscosity, respectively. Moreover, we also give the time-decay rate in L^∞ -norm with general convex flux and linear viscosity. All of these results do not involve smallness conditions on the initial data.



非线性数学模型与方法教育部重点实验室
中法应用数学国际联合实验室
上海市现代应用数学重点实验室
复旦大学数学研究所