

数学与系统科学研究院

计算数学所学术报告

报告人: **Associate Prof. Bangwei She**

(*Czech Academy of Sciences*)

报告题目:

**Convergence of numerical solutions
for the compressible Navier-Stokes
system**

邀请人: 毛士鹏 研究员

报告时间: 2021 年 12 月 9 日 (周四)

下午 14:30-15:30

报告地点: 科技综合楼

311 教室

Abstract:

In this talk we discuss the convergence of suitable numerical schemes for the compressible viscous flows. First, we construct an energy stable scheme. Then using the a priori estimates derived from the stability, we build the consistency formulation of the scheme without any assumption on the regularity of the solution. Next, passing to the limit implies the convergence to the dissipative weak solution. Finally, using the weak-strong uniqueness principle in the class of the dissipative weak solutions, we conclude the convergence to the strong solution as long as the latter exists. These results have been obtained in collaboration with Eduard Feireisl (Czech Academy of Sciences), Maria Lukáčová (University of Mainz), and Hana Mizerová (Comenius University in Bratislava).

欢迎大家参加！