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12 月 12 日，报到：上海闵行区800号，上海交通大学，理科六号楼	
Category----粘性消失极限 腾讯会议953-552-587	
9:45-11:45	»Jæ(西北工业大学) Vanishing viscosity limits for the free boundary problem of compressible flows 主持人：朱圣国 (上海交通大学)
晚餐	
12月 13 日，上海交通大学闵行校区理科群楼 6 号楼 607教室	
午餐	
Minicourse----双曲守恒律补偿列紧理论	
13:30-14:30	)ÁJÜ(云南大学) Compensated compactness theory for hyperbolic conservation Laws I 主持人：李亚纯 (上海交通大学)
14:40-15:40	)ÁJÜ

报告简介

NÎ-$ ÆVanishing viscosity limits for the free boundary problem of compressible flows

梅钰 (西北工业大学)

Ž?· ÆIn this talk, we present some results of vanishing viscosity limits for the free boundary problem of compressible isentropic flows. For the free boundary compressible Navier-Stokes equations of Newtonian fluids with or without surface tension, we established the uniform regularities of solutions in Sobolev conormal and Lipschitz spaces, and justified the vanishing viscosity and surface tension limits by a strong convergence argument. On the other hand, for the free boundary compressible viscoelastic equations of neo-Hookean fluids with or without surface tension, we obtained the uniform Sobolev regularities of solutions and proved the vanishing viscosity limits in Sobolev spaces, which indicates the stabilizing effect of elasticity.

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NÎ-$ ÆCompensated compactness theory for hyperbolic conservation Laws

王钦 (云南大学)

Ž?· ÆIn this presentation, we will first systematically introduce the basic theory and the development history of the compensate compactness, and then describe how to utilize the theory of compensated compactness to prove the existence of weak solutions to a hyperbolic system of conservation law equations.

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NÎ-$ ÆWave interaction estimates in the Glimme Scheme

曹玥（华东理工大学）

Ž?· ÆThe random choice method, which has provided the earliest, but still very effective, scheme for constructing globally defined, admissible BV solutions to the Cauchy problem for strictly hyperbolic systems of conservation laws, under initial data with small total variation. The solution is obtained as the limit of a sequence of approximate solutions that do not smear shocks. The first step is to estimate local changes in the total variation of the approximate solutions.

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NÎ-$ ÆHall-MHD system as a simplified one-fluid ion model derived from two-fluid Euler-Maxwell equations

袭帅（山东科技大学）

Ž?· ÆWe derive the one-fluid ion model from the partial-compressible two-fluid Euler-Maxwell system with collision mechanism in which the ions are considered compressible while electrons are not. Deriving such a model based solely on the zero-electron-mass limit or the quasi-neutral limit is quite open because of the singularities of the electric field and the strong coupling effects of the Lorentz forces. In this work, we apply the combined zero-electron-mass and quasi-neutral limit. We prove the global-in-time existence and the combined limit of smooth solutions. Furthermore, for well-prepared initial data, we establish the error estimates of the convergence between smooth solutions to one-fluid and two-fluid models. It is worth mentioning that the velocities of ions and electrons are different in this study.

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