

数学与系统科学研究院

计算数学所学术报告

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报告题目:

**Pointwise estimate of the solution of
the linearized Boltzmann equation**

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下午 15:30-16:30

报告地点: 科技综合楼三层

311 报告厅

Abstract:

We study the pointwise behavior of the solutions of the linearized Boltzmann equation for hard potentials, Maxwellian molecules and soft potentials, with Grad's angular cutoff assumption. More precisely, for solutions inside the finite Mach number region, we obtain the pointwise fluid structure for hard potentials and Maxwellian molecules, and optimal time decay in the fluid part and sub-exponential time decay in the non-fluid part for soft potentials. For solutions outside the finite Mach number region, we obtain sub-exponential decay in the space variable. The singular wave estimate, regularization estimate and refined weighted energy estimate play important roles in the study. This is a joint work with Yu-Chu Lin and Kung-Chien Wu.

欢迎大家参加！