


复旦大学数学科学学院
数学综合报告会

报告题目：**Zero Viscosity and Thermal Diffusivity Limit of the Linearized Compressible Navier-Stokes-Fourier Equations in the Half Plane**

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报告地点：光华东主楼 1801

摘要：We study the zero viscosity and heat conductivity limit of an initial boundary problem for the linearized Navier-Stokes-Fourier equations of a compressible viscous and heat conducting fluid in the half plane. We consider the case that the viscosity and thermal diffusivity converge to zero at the same order. The approximate solution of the linearized Navier-Stokes-Fourier equations with inner and boundary expansion terms is analyzed formally first by multiscale analysis. Then the pointwise estimates of the error terms of the approximate solution are obtained by energy methods, thus establish the uniform stability for the linearized Navier-Stokes-Fourier equations in the zero viscosity and heat conductivity limit.

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