



偏微分方程及其应用中心

学术报告

报告题目: A quasi compressible-Stokes iteration scheme with applications to subsonic flows at the high Reynolds number

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摘要: Even though there are extensive studies on the stability/instability of different hydrodynamic patterns in various physical settings, particularly in the high Reynolds number limit of laminar flows for the incompressible Navier-Stokes equations, there are much fewer mathematical results in the compressible setting. This talk will present a new approach to studying the compressible Navier-Stokes equations in the subsonic and high Reynolds number regimes. The main ingredient is introducing two new operators involving quasi-compressible and Stokes approximations. And then, an iteration scheme is defined by applying these operators to solve the linearized compressible Navier-Stokes equations. Some applications of this approach will also be discussed.