On the vanishing viscosity in the Cauchy problem for the equations of the non-homogeneous asymmetric fluids in $\mathbb{R}^3$

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Abstract

The vanishing viscosity is justified for the local-in-time solutions to the equations of non-homogeneous, viscous, incompressible asymmetric fluid in $\mathbb{R}^3$. We prove that the fluid variables converges uniformly as the viscosities go to zero. In the limit, we find a non-homogeneous, non-viscous, incompressible asymmetric fluid governed by an Euler-like system.

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