

Ghost effect system

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Abstract

In this contribution, we will prove that the ghost effect system has a global solution. This model is derived from Kinetic theory of gas and it allows to describe the behavior of a gas in the continuum limit when the Navier-Stokes and Euler equations are incomplete to describe it. The key tool in this paper is a new functional inequality inspired of what proposed in [2]. Our result extend the local existence result proved in [3] to a global one and improve also the result established in [1] for low Mach number.

Keywords: Ghost effect system, Bohm identity, Low Mach number.

References

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