

Low Mach number limit of nonisentropic inviscid Hookean elastodynamics

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Abstract

The low Mach number limit of the nonisentropic compressible Hookean elastodynamic equations is rigorously proved with respect to well-prepared initial data. We introduce certain suitable seminorms to obtain the uniform estimate of solutions, for which the critical point is to cancel the higher order derivate terms caused by the coupling of velocity and deformation gradient.

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