

3-D flow of a compressible viscous micropolar fluid with spherical symmetry: a local existence theorem

(Talk)

Ivan Dražić

Faculty of Engineering, University of Rijeka, Rijeka, Croatia
idrazic@riteh.hr

(joint work with Nermina Mujaković, Department of Mathematics, University of Rijeka, Rijeka, Croatia)

We consider nonstationary 3-D flow of a compressible viscous heat-conducting micropolar fluid in the domain to be the subset of \mathbf{R}^3 bounded with two concentric spheres that present the solid thermoinsulated walls. In thermodynamical sense fluid is perfect and polytropic. Assuming that the initial density and temperature are strictly positive we will prove that for smooth enough spherically symmetric initial data there exists a spherically symmetric generalized solution locally in time.

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