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Research interest: partial differential equations, initial – boundary value problems in continuum mechanics, numerical methods in a theory of partial differential equations, theory of compressible micropolar fluids.

Recent publications:

[1] N. Mujaković, N. Črnjarić-Žic, *The finite difference scheme for 1D flow of a compressible micropolar fluid with homogeneous boundary conditions: a global existence theorem*, **International journal of numerical analysis and modeling 12** (2014), 94-124.
[2] N. Mujaković, I. Dražić, *3-D flow of a compressible viscous micropolar fluid with spherical symmetry: uniqueness of a generalized solution*, **BoundaryValueProblems 226**(2014), 1-17, doi:10.1186/s13661-014-0226-z
[3] N. Mujaković, *The existence of global solution for one dimensional compressible viscous micropolar fluid with non-homogeneous boundary conditions for temperature*, **Nonlinear analysis: real world applications 19** (2014), 19-30.
[4] I. Dražić, N. Mujaković, *3-D flowof a compressible viscous micropolar fluid with spherical symmetry: a local existence theorem*, **Boundary Value Problems 69**(2012), 1-25, doi:10.1186/1687-2770-2012-69
[5] N. Mujaković, *1-D compressible viscous micropolar fluid model with non-homogeneous boundary conditions for temperature: a local existence theorem*, **Non linear analysis: real world applications 13** (2012), 1844-1853.

Selected publications:

[1] N. Mujaković, *One – dimensional flow of a compressible viscous micropolar fluid: a local existence theorem,* **Glasnik Matematički, Vol. 33 (53)** (1998), 71-91.
[2] N. Mujaković, I. Dražić, *Numerical approximations of the solution for one – dimensional compressible viscous micropolar fluid model,* **International Journal of Pure and Applied Mathematics, Vol. 38,** (2007) 285-296.
[3] N. Mujaković, *Non-homogeneous boundary value problem for one-dimensional compressible viscous micropolar fluid model: a local existence theorem,* **Annali dell'Universita di Ferrara, Vol. 53 (2), (***2007),* 361**-**379.
[4] N. Mujaković, *Non-homogeneous boundary value problem for one-dimensional compressible viscous micropolar fluid model: a global existence theorem*, **Mathematical inequalities & applications**, **Vol. 12 (3)** (2009), 651-662.
[5] N. Mujaković, *One-Dimensional Compressible Viscous Micropolar Fluid Model: Stabilization of the Solution for the Cauchy Problem*, **Boundary Value Problems, vol. 2010, Article ID 796065, 21 pages, 2010. doi:10.1155/2010/796065**