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NON–HOMOGENEOUS BOUNDARY VALUE PROBLEM FOR ONE–DIMENSIONAL COMPRESSIBLE VISCOUS MICROPOLAR FLUID MODEL: A GLOBAL EXISTENCE THEOREM

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Abstract. An initial-boundary value problem for 1-D flow of a compressible viscous heat-conducting micropolar fluid is considered; the fluid is assumed thermodynamically perfect and polytropic. By transforming the original problem into homogeneous one we prove a global-in-time existence theorem. The proof is based on a local existence theorem, obtained in the previous research paper [5].

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