Limits of Riemann solutions for isentropic MHD in a variable cross-section duct as magnetic field vanishes

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Abstract

The stability for magnetic field to the solution of the Riemann problem for the polytropic fluid in a variable cross-section duct is discussed. By the vanishing magnetic field method, the stable solutions are determined by comparing the limit solutions with the solutions of the Riemann problem for the polytropic fluid in a duct obtained by the entropy rate admissibility criterion.

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