On the Compatibility of Overdetermined Systems of Double Waves

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Abstract. Obtaining equations for double waves in the case of a general quasilinear system of partial differential equations poses some difficulties. They are connected with the complexity and awkwardness of the study of overdetermined systems, describing solutions of this class. However, there are general statements about double waves of autonomous quasilinear systems of equations. This article is devoted the classification of irreducible double waves of autonomous nonhomogeneous systems.

Keywords: Partially invariant solutions, degenerate hodograph, multiple waves, double waves.