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EXISTENCE OF A GLOBAL WEAK SOLUTION OF THE CAUCHY PROBLEM FOR SYSTEMS OF SEMILINEAR HYPERBOLIC EQUATIONS

Abstract

We consider the Cauchy problem for systems of second and fourth order semilinear hyperbolic equations.

In the paper we established the criterion analogous to Fujit's criterion for global solvability: the conditions on nonlinearity increase ensuring the existence of global solution are obtained. The mentioned example shows that the conditions on nonlinearity increase are exact.