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论文

线性退化的严格双曲组具慢衰减初值的Cauchy问题的经典解

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摘要:

该文给出了线性退化的严格双曲组具慢衰减及小全变差初值的Cauchy问题的经典解的整体存在唯一性。这个结果进一步推广了A Bressan的相关结果。

关键词: 线性退化 小全变差 慢衰减初值 拟线性双曲组

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Global Existence of Classical Solution with Slowly Decaying Initial Data for Quasilinear Linearly Degenerate Hyperbolic Systems

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Abstract:

In this paper, the authors prove the global existence of classical solution to the Cauchy problem with slowly decaying initial data with small initial total variation for general first order quasilinear linearly degenerate hyperbolic systems. This generalizes the corresponding result of A Bressan for initial data with compact support.

Keywords: Linear degeneracy Small initial total variation Slowly decaying initial data Quasilinear hyperbolic system

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