

论文

气体动力学压差方程一类波的相互作用

杨柳, 盛万成

上海大学数学系

摘要:

该文利用一个分析不等式,得到了气体动力学压差方程前向激波追赶前向激波相互作用的结果为后向激波与前向激波相离

关键词: 气体动力学压差方程, 激波, 相互作用, 分析不等式

分类号:

35L65,76N10

The Interaction of Shock Waves of Pressure Difference Equations in Gas Dynamics

YANG Liu, CHENG Mo-Cheng

Abstract:

By using an inequality, the authors obtain the result of the interaction of two forward shock waves is that one backward shock wave and forward shock wave deviate from each other: $[AKS \rightarrow][AKS \rightarrow] \rightarrow [AKS \leftarrow][AKS \rightarrow]$.

Keywords: Pressure difference equations, Shock waves, Interaction, Inequality

收稿日期 修回日期 网络版发布日期

DOI:

基金项目:

国家自然科学基金(10271072)资助

通讯作者:

作者简介:

参考文献:

[1]Agarwal R K, Halt D W. A modified CUSP scheme in wave particle split form for unstructured grid Euler flow. Frontiers of Computational Fluidynamics, David A. In:Caughey, Mohamed M Hafez, eds. Singapore: World Scientific Publishing Company, 1994. 155-163

[2]Chang T, Hsiao L.The Riemann problem and interaction of waves in gas dynamics. Pitman Monographs and Surveys in Pure and Applied Mathematics 41New York: Longman Scientific & Technical, 1989

[3]Li J, Zhang T, Yang S. The two dimensional Riemann problem in gas dynamics. Pitman Monographs and Surveys in Pure and Applied Mathematics 98. New York: Longman Scientific and Technical, 1998

[4]Sheng W C. The initial value problems for the pressure difference equations in gas dynamics. preprint, 2002

扩展功能

本文信息

- ▶ Supporting info
- ▶ PDF(299KB)
- ▶ [HTML全文]
- ▶ 参考文献

服务与反馈

- ▶ 把本文推荐给朋友
- ▶ 加入我的书架
- ▶ 加入引用管理器
- ▶ 引用本文
- ▶ Email Alert
- ▶ 文章反馈
- ▶ 浏览反馈信息

本文关键词相关文章

- ▶ 气体动力学压差方程, 激波, 相互作用, 分析不等式

本文作者相关文章

- ▶ 杨柳
- ▶ 盛万成

PubMed

- ▶ Article by Yang, L.
- ▶ Article by Cheng, M. C.

[5]Sheng W C. Delta waves as distribution solutions of the 2 D transportation equations in gas dynamics. Applied Functional Analysis, 1997,:16 1-168

[6]Sheng W C, Zhang T. The Riemann problem for the transportation equations in gas dynamics. Memoirs of AMS, 1999, 137(654)

[7]Smoller J A. Shock Waves and Reaction Diffusion Equations. New York: Springer Verlag, 1982

[8]Zhang T, Zheng Y. Conjecture on structure of solution of Riemann problem for 2 D gas dynamic systems. SIAM J Math Anal, 1990, 21(3): 493-630

本刊中的类似文章

文章评论 (请注意:本站实行文责自负, 请不要发表与学术无关的内容!评论内容不代表本站观点.)

反馈人	<input type="text"/>	邮箱地址	<input type="text"/>
反馈标题	<input type="text"/>	验证码	<input type="text"/> 1971