

Métivier, Guy

Interaction de deux chocs pour un système de deux lois de conservation, en dimension deux d'espace. (Interaction of two shock waves for a system with two conservation laws in two dimensional space). (French) [Zbl 0619.35075](#)

Trans. Am. Math. Soc. 296, 431-479 (1986).

The Cauchy problem with a discontinuous initial data is locally solved for a strictly hyperbolic system of two conservation laws in two dimensional space and the interaction of two shock waves is studied. This leads to a nonlinear free boundary Goursat problem.

Reviewer: [G.Boillat](#)

MSC:

- [35L65](#) Hyperbolic conservation laws
- [76L05](#) Shock waves and blast waves in fluid mechanics
- [35L50](#) Initial-boundary value problems for first-order hyperbolic systems
- [35L67](#) Shocks and singularities for hyperbolic equations
- [35L45](#) Initial value problems for first-order hyperbolic systems
- [35A07](#) Local existence and uniqueness theorems (PDE) (MSC2000)

Cited in **4** Reviews
Cited in **29** Documents

Keywords:

Cauchy problem; discontinuous initial data; strictly hyperbolic system; shock waves; nonlinear free boundary Goursat problem

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