

**Childs, P. N.; Morton, K. W.**

**Characteristic Galerkin methods for scalar conservation laws in one dimension.** (English)

Zbl 0728.65086

SIAM J. Numer. Anal. 27, No. 3, 553-594 (1990).

An Euler characteristic Galerkin method for scalar conservation laws is given. Second order accuracy for smooth flows is proved. Numerical experiments are presented.

Reviewer: I.Evzerov (Kiev)

**MSC:**

- 65M60** Finite element, Rayleigh-Ritz and Galerkin methods for initial value and initial-boundary value problems involving PDEs
- 65M15** Error bounds for initial value and initial-boundary value problems involving PDEs
- 35L65** Hyperbolic conservation laws

Cited in **13** Documents

**Keywords:**

numerical examples; Euler characteristic Galerkin method; conservation laws; Second order accuracy; smooth flows

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