

**Jiang, Guang-Shan; Peng, Danping**

**Weighted ENO schemes for Hamilton-Jacobi equations.** (English) [Zbl 0957.35014](#)  
SIAM J. Sci. Comput. 21, No. 6, 2126-2143 (2000).

The authors introduce a weighted ENO scheme for Hamilton-Jacobi equations. The purpose of the weighting is to afford a smooth transition between the traditional ENO scheme in regions with discontinuities and a fifth-order scheme where the solution is smooth. Several examples are given, illustrating the efficacy of the method.

Reviewer: [Gerald W.Hedstrom \(Pleasanton\)](#)

**MSC:**

[35A35](#) Theoretical approximation in context of PDEs

[65M06](#) Finite difference methods for initial value and initial-boundary value problems involving PDEs

[35F25](#) Initial value problems for nonlinear first-order PDEs

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**Keywords:**

ENO scheme in regions with discontinuities; fifth-order scheme where the solution is smooth

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