Xu, Zhengfu
Parametrized maximum principle preserving flux limiters for high order schemes solving hyperbolic conservation laws: one-dimensional scalar problem. (English) Zbl 1300.65063

The author is concerned with higher-order maximum principle preserving schemes for hyperbolic conservation laws within the flux limiters. The approach relies on decoupling a sequence of parameters embedded in a group of explicit inequalities which preserves both the global maximum principles and the accuracy of the underlying scheme. Several numerical tests are performed which support the theoretical findings.

Reviewer: Marius Ghergu (Dublin)

MSC:

65M08	Finite volume methods for initial value and initial-boundary value problems involving PDEs
65M06	Finite difference methods for initial value and initial-boundary value problems involving PDEs
35L65	Hyperbolic conservation laws
35B50	Maximum principles in context of PDEs

Cited in **2** Reviews
Cited in **35** Documents

Keywords:

hyperbolic conservation laws; maximum principle preserving; parametrized flux limiters; high-order scheme; numerical test

Full Text: DOI

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