

Bürger, Raimund; Karlsen, Kenneth H.; Towers, John D.

A conservation law with discontinuous flux modelling traffic flow with abruptly changing road surface conditions. (English) [\[Zbl 1186.35005\]](#)

Tadmor, Eitan (ed.) et al., Hyperbolic problems. Theory, numerics and applications. Contributed talks. Proceedings of the 12th international conference on hyperbolic problems, June 9–13, 2008. Providence, RI: American Mathematical Society (AMS) (ISBN 978-0-8218-4730-5/hbk; 978-0-8218-4728-2/2-vol. set). Proceedings of Symposia in Applied Mathematics 67, Part 2, 455-464 (2009).

This author develops a scalar monotone difference scheme and presented its convergence and uniqueness. The theorems are developed with sound mathematical theory, and numerical experiments are performed for validation.

For the entire collection see [\[Zbl 1179.35009\]](#).

Reviewer: [Prabhat Kumar Mahanti \(Saint John\)](#)

MSC:

- [35A35](#) Theoretical approximation in context of PDEs
- [65M06](#) Finite difference methods for initial value and initial-boundary value problems involving PDEs
- [35L65](#) Hyperbolic conservation laws
- [90B20](#) Traffic problems in operations research

Cited in **3** Documents

Keywords:

[entropy](#); [flux](#); [crossing condition](#)