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**On the convergence of multistep methods for ordinary differential equations with discontinuities.** (English) [Zbl 0571.65065](#)  
[Demonstr. Math. 16, 651-675 \(1983\)](#).

This paper is concerned with the solution of an initial value problem on some interval, where the solution satisfies the initial condition and the differential equation almost everywhere on that interval, by quasilinear multistep methods. (Such methods include the family of linear multistep methods as a special case.) Sufficient conditions for the convergence of this class of methods are given, relating convergence to the concepts of consistency and stability in the usual way. The order and stability and convergence of a subclass of this family of methods is studied.

Reviewer: [K.Burraga](#)

**MSC:**

- [65L05](#) Numerical methods for initial value problems involving ordinary differential equations
- [65L20](#) Stability and convergence of numerical methods for ordinary differential equations
- [34A34](#) Nonlinear ordinary differential equations and systems

Cited in **3** Documents

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