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On stability of non-selfconjugated difference schemes with M -matrices for evolutionary boundary value problems with elliptic operator over the whole space. (English. Russian original) [Zbl 0856.65096](#)
[Russ. Math. 39, No. 9, 13-20 \(1995\)](#); translation from *Izv. Vyssh. Uchebn. Zaved., Mat.* 1995, No. 9 (400), 15-22 (1995).

The purpose of this paper is to study the stability analysis for implicit two-layered schemes for the solution of an initial-boundary value problem in a two-dimensional domain. No numerical experiment is presented. The paper is theoretical in nature.

Reviewer: [P.K.Mahanti \(Ranchi\)](#)

MSC:

- [65M06](#) Finite difference methods for initial value and initial-boundary value problems involving PDEs
- [35G10](#) Initial value problems for linear higher-order PDEs
- [35K25](#) Higher-order parabolic equations
- [65M12](#) Stability and convergence of numerical methods for initial value and initial-boundary value problems involving PDEs

Keywords:

[non-selfconjugated difference schemes](#); [\$M\$ -matrices](#); [evolution equations](#); [stability](#); [implicit two-layered schemes](#); [initial-boundary value problem](#)