

Numerical Solution of a Two Dimensional Elliptic-Parabolic Equation with Dirichlet-Neumann Condition

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Abstract: In the present paper, a two dimensional elliptic-parabolic equation with Dirichlet-Neumann boundary condition is studied. The first and second order of accuracy difference schemes for the numerical solution of this problem are presented. Illustrative numerical results of these difference schemes are provided by using a procedure of modified Gauss elimination method.

Keywords: Elliptic-Parabolic equation, nonlocal boundary value problems, stability, difference scheme

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