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عنوان مقاله:

A FAMILY OF POSITIVE NONSTANDARDNUMERICAL METHODS WITH APPLICATION TOBLACK-SCHOLES EQUATION

محل انتشار:

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خلاصه مقاله:

Nonstandard finite difference schemes for the BlackScholes partial differential equation preserving the positivity property are proposed. Computationally simple schemes are derived byusing a nonlocal approximation in the reaction term of the BlackScholes equation. Unlike the standard methods, the solutions ofnew proposed schemes are positive and free of the spurious oscillations.

کلمات کلیدی:

Black-Scholes equation, Option pricing, Finite differencescheme, Positivity-preserving

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