# THE MINIMAL ENTROPY AND MINIMAL $\varphi$-DIVERGENCE DISTANCE MARTINGALE MEASURES FOR THE TRINOMIAL SCHEME

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*Abstract*

In this paper we construct the martingale measures which minimize the relative entropy and reverse relative entropy with respect to a reference measure $P$ in trinomial scheme. We also find the martingale measure which minimizes $\varphi$-divergence distance defined by convex function $\varphi$ and includes relative entropy and reverse relative entropy as special cases of $\varphi$-divergence.

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