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## PRICING EUROPEAN OPTIONS ON INSTRUMENTS WITH A CONSTANT DIVIDEND YIELD: THE RANDOMIZED DISCRETE-TIME APPROACH

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Abstract: Due to the well-known fact that market returns are not normally distributed, we use generalized hyperbolic distributions for pricing options in a randomized discrete-time setup. The obtained formulas can be used for pricing options on stock indexes, currencies and futures contracts. We test them on options written on the Nikkei 225 index futures and conclude that a proper calibration scheme could give us an advantage in the financial market.

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**Key words and phrases:** Option pricing, dividends, randomization, alternative models.

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