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The Modified Black-Scholes Model via Constant Elasticity of Variance for Stock Options Valuation

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Abstract. In this paper, the classical Black-Scholes option pricing model is visited. We present a modified version of the Black-Scholes model via the application of the constant elasticity of variance model (CEVM); in this case, the volatility of the stock price is shown to be a non-constant function unlike the assumption of the classical Black-Scholes model.

INTRODUCTION