

The Strategic Pricing of Options : Black-Sholes Equation

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KEYWORDS: Mathematical Finance, Evolutionary Game Theory, Reaction-Diffusion Equation, Black-Sholes Equation

ABSTRACT

This talk is about mathematical finance, option pricing. First, we review the elementary mathematical finance around Black-Sholes equation (heat equation) [1].

Second, this study gives an example as an extension (extended Black-Sholes equation, Reaction Diffusion equation): pays attention to a correlation among the stocks.

In addition to the above extension, this study constructs a game-theoretic model that the stock price based on the player's strategic action to refer to [2].

Finally, this study considers the relations between extended Black-Sholes equation and this model.

REFERENCE

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- [2] Cox, John C., Ross, Stephen A. and Rubinstein, Mark (1979): "Option Pricing: A Simplified Approach," *Journal of Financial Economics*, Vol. 3, pp. 145-166.