

A New Option Jump-Diffusion Model: A Simple Formula ^{*}

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^{*}The authors are grateful to the editors for their substantive comments that have significantly improved this manuscript. The second author would like to thank Professors Robert B. Miller and Howard E. Thompson for their continuous guidance and encouragement. This research is partially supported by grants from Asia University, China Medical University Hospital, the Research Grants Council (RGC) of Hong Kong (project number 12500915), and Ministry of Science and Technology (MOST, Project Numbers 106-2410-H-468-002 and 107-2410-H-468-002-MY3), Taiwan.

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Abstract

In this paper, we provide an alternative to the jump-diffusion option pricing models. In doing so, we provide a simple, explicit formula that doesn't require a computational method. Furthermore, we introduce a new, simple method for solving partial integro-differential equation equations.

JEL Classification:

Keywords: Option pricing, Merton model, jump-diffusion, closed-form solution, partial integro- differential equation, the Black-Scholes formula.