Artificial Neural Network Enhanced Parametric Option Pricing

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This Version: January 2006

JEL classification: G13, G14

Keywords: Option pricing, implied volatilities, implied parameters, artificial neural networks, optimization

Acknowledgements: This work has been partly funded by the Hermes European Center of Excellence in Computational Finance and Economics, and a University of Cyprus grant for research in ANN and Derivatives.

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Abstract

In this paper we explore ways that alleviate problems of nonparametric (artificial neural networks) and parametric option pricing models by combining the two. The resulting enhanced network model is compared to standard artificial neural networks and to parametric models with several historical and implied parameters. Empirical results using S&P 500 index call options strongly support our approach.