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**Sher B. Chhetri\***, 777 Glades Rd., Boca Raton, FL 33431, and **Hongwei Long**, 777 Glades Rd., Boca Raton, FL. *Parameter Estimation for Jump Diffusion Model Driven by  $\alpha$ -stable Lévy Motion*. Preliminary report.

In finance, various stochastic models are used to model the price movements of financial instruments. After Robert Morton's (1976) seminal work, several jump diffusion models for option pricing and risk management have been proposed. In this work, we add  $\alpha$ -stable Lévy motion to the process related to dynamics of log-returns in the Black-Scholes model. We use sample characteristic functions to estimate parameters involved in the process that is discretely observed. We also discuss the consistency and asymptotic normality of the proposed estimators. Simulation results and applications to real data sets will be presented. (Received September 25, 2018)