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Kevin Guo* (klg2138@columbia.edu), New York, NY 10027, and **Tim Leung**
(leung@ieor.columbia.edu). *Understanding the Risks of Commodity Exchange-Traded Funds.*

In this paper, we investigate the tracking errors of leveraged exchange traded funds (ETFs) based on commodity prices or indices. We first observe from empirical data the visible discrepancy in returns of these ETFs as compared to their reference indices. This leads us to define and analyze the tracking error time series associated with each ETF. We find that tracking errors can significantly deteriorate returns in the long run. Incorporating stochastic tracking errors into ETF price dynamics, we examine the effectiveness of a number of trading strategies. (Received September 17, 2013)