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Jean-Pierre Fouque^{*} (fouque@pstat.ucsb.edu), Dept. of Statistics and Applied Probability, South Hall 5504, University of California, Santa Barbara, CA 93106-3110, and Ronnie Sircar and Knut Solna. Monte Carlo Simulations with Skews of Implied Volatilities.

We consider Monte Carlo simulations of many underlyings modeled as correlated geometric Brownian motions, and we propose a simple and efficient way to take into account the skew of implied volatilities of each underlying while retaining the correlation structure. Our method has applications in equity, fixed income, credit, and energy markets. (Received September 05, 2007)