1046-00-1232   **Liming Feng*** (`fenglm@illinois.edu`), University of Illinois at Urbana-Champaign, 117 Transportation Building, MC-238, 104 S Mathews Ave, Urbana, IL 61801. *A Hilbert transform approach to options pricing.*

In this talk, we present a Hilbert transform approach to the pricing of various options with discrete monitoring. Option prices are represented in terms of Hilbert transforms, which can be discretized with exponentially decaying errors. The resulting discrete approximation can be implemented efficiently using the fast Fourier transform. Numerical results for options pricing in Levy models will be shown. (Received September 15, 2008)