1060-60-82   **Tim S.T. Leung*** (`leung@jhu.edu`), **Ronnie Sircar** and **Thaleia Zariphopoulou**. *Forward Indifference Valuation of American Options in Incomplete Markets.*

We discuss the forward indifference valuation of American options in general incomplete diffusion markets. Under a general forward performance criterion, we formulate the option holder's valuation problem as a combined stochastic control and optimal stopping problem. This leads to the analytic and numerical studies of the associated variational inequality. We examine two specific financial applications: the valuation of American options under stochastic volatility, and the modeling of early exercises of American-style employee stock options. We also show that the marginal forward indifference price is independent of the investor's wealth and risk preferences, and is represented as the claim's risk-neutral price under the minimal martingale measure. (Received March 21, 2010)