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Albina Danilova* (danilova@andrew.cmu.edu), Department of Mathematical Sciences, Carnegie Mellon University, Pittsburgh, PA 15213-3890. *Stock Market Insider Trading in Continuous Time with Imperfect Dynamic Information.*

In this talk I will present a model of the equilibrium pricing of asset shares in the presence of dynamic private information. The market consists of a risk-neutral informed agent who observes the firm value, noise traders, and competitive market makers who set share prices using the total order flow as a noisy signal of the insider's information. I provide a characterization of all optimal strategies, and prove existence of both markovian and non markovian equilibria by deriving closed form solutions for the optimal order process of the informed trader and the optimal pricing rule of the market maker. The consideration of non markovian equilibrium is relevant since market maker might decide to re-weight past information after receiving a new signal. Also, I show that a) there is a unique markovian equilibrium price process which allows the insider to trade undetected, and that b) the presence of an insider increases the market informational efficiency, in particular for times close to dividend payment. (Received September 15, 2008)