1127-00-91 **Hyoeun Lee*** (`lee1487@purdue.edu`), 250 N. University St., West Lafayette, IN 47907, and **Jose E. Figueroa-Lopez** and **Raghu Pasupathy**. *Optimal placement of a small order under a diffusive limit order book model.*

We study the optimal placement problem of a stock trader who wishes to clear his/her inventory by a predetermined time horizon by using a limit order or a market order. For a diffusive market, we characterize the optimal limit order placement and analyze its behavior under different market conditions. In particular, we propose a simple method to determine the optimal order placement and show its performance. This is joint work with Professors J. Figueroa-Lopez and R. Pasupathy. (Received January 25, 2017)