*An agent strategy for automated stock market trading combining price and order book information*

Due to everything goes through the electronical trading these days, by the PLAT for NASDAQ. The study is about to use four different strategies, SOBI(static order book imbalance), VWAP(Volume Average Weighed Prices), TF(Trend Following), and Reverse Strategy to test back the original data and book order data of MSFT on the NASDAQ. By using the Sharpe ratio, they’ve found that SOBI, Rev & TF with 2/3 decisions are the best with the highest profits.

# *An Empirical Study of Machine Learning Algorithms for Stock Daily Trading Strategy*

In recent years, many researchers focus on adopting machine learning (ML) algorithms to predict stock price trends, but the studies were carried out on small stock datasets with limited features, short back testing period, and no consideration of transaction cost, with lacking statistical significance test as well. Based on the large-scale stock datasets, they evaluate various ML algorithms and observe the daily trading performance of stocks under transaction cost and no transaction cost. They use two large datasets of 424 S&P 500 index component stocks (SPICS) and 185 CSI 300 index component stocks (CSICS) from 2010 to 2017 and compare six traditional ML algorithms and six advanced deep neural network (DNN) models on these two datasets. The experimental results demonstrate that traditional ML algorithms have a better performance in most of the directional evaluation indicators. But the performance of some traditional ML algorithms is not much worse than that of the best DNN models without considering the transaction cost. Moreover, the trading performance of all ML algorithms is sensitive to the changes of transaction cost. Compared with the traditional ML algorithms, DNN models have better performance considering transaction cost. Meanwhile, the impact of transparent transaction cost and implicit transaction cost on trading performance are different. So different markets may need different strategies to follow up.