The following paper analyses the strategic competition between privately informed fast and slow traders where a Fast Trader (FT) benefits from lower latency compared to a slower trader (ST). As a consequence, a Fast Trader (FT) can trade more, on a given piece of information, than a slow trader (ST).

In accordance with the overwhelming findings in the empirical literature, we find that the speed advantage of FTs has a beneficial effect on market liquidity as well as price efficiency. We obtain that FTs earn higher expected profits than their slower counterparts and that slower traders are worse off when FTs are present. We find that price volatility is non-monotonic with the number of fast traders and their relative speed. This means that price volatility can be increased due to the presence of fast traders. Finally, our model estimates that the participation rate of the fast traders to the volume is large and increases with their speed advantage.