



Patience and Impatience of Stock Traders

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I derive asymptotic distribution of the bids/offers as a function of proportion between patient and impatient traders using my modification of Foucault, Kadan and Kandel dynamic Limit Order Book (LOB) model. Distribution of patient and impatient traders asymptotically obeys rather simple PDE, which admits numerical solutions. My modification of LOB model allows stylized but sufficiently realistic representation of the trading markets. In particular, dynamic LOB allows simulating the distribution of execution times and spreads from high-frequency quotes. Significant analytic progress is made towards future empirical study of trading as competition for immediacy of execution between traders. The results are qualitatively compared with empirical volume- price distribution of liquid stocks.

Subjects: **Trading and Market Microstructure (q-fin.TR)**

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