

Why is the estimation of market impact of large trades with public market data so challenging?

Prof. Fabrizio Lillo

Scuola Normale Superiore

Abstract: Estimating market impact and transaction costs of large trades (metaorders) is a very important topic in finance. However, using models of price and trade based on public market data provides average price trajectories which are qualitatively different from what is observed during real metaorder executions. We claim that this is a generic phenomenon due to the fact that even sophisticated statistical models are unable to correctly describe the origin of the autocorrelation of the order flow. In the talk (i) we propose a modified Transient Impact Model which provides more realistic trajectories by assuming that only a fraction of the metaorder trading triggers market order flow and (ii) we propose to use Bayesian online change-point detection methods to identify order flow regime shifts in real-time and enable online predictions of order flow and market impact.

April 14th, 2026, at 11:00 A.M.

Sala del Consiglio 4057 - U7 Building (Fourth floor)

Via Bicocca degli Arcimboldi 8 – 20126 Milano

The seminar will be held in a hybrid format (in-person and online). If you would like to attend remotely or require any further information, please write to giorgio.rizzini@unimib.it