

## NOISE AND INFORMATION IN ECONOPHYSICS

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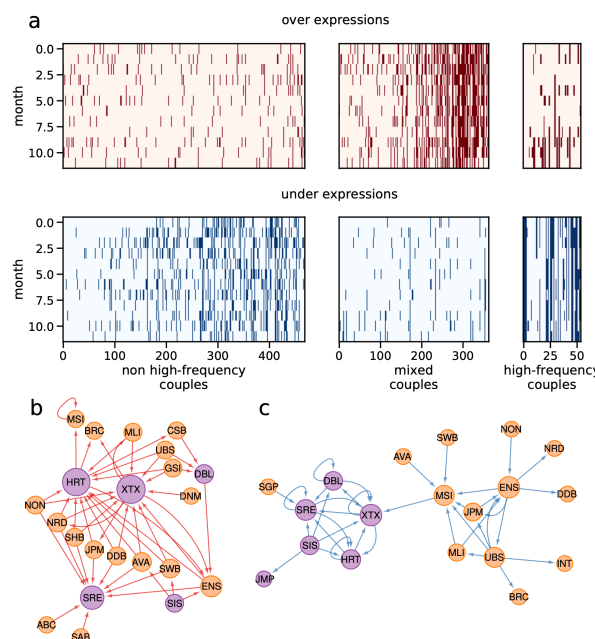
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Piattaforma TEAMS (<https://bit.ly/3E6iV73>)

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I will discuss the modeling of financial markets in terms of institutions performing information aggregation. Specifically, I will consider the nature and value of dispersed information that is aggregated in a market during the process of price discovery. As a case study, I will show the simultaneous presence of information and noise in multivariate return time series of stocks traded in a stock market and I will discuss some successful methods of information filtering [1,2]. The complexity of the process of aggregation of information that is endogenous and/or exogenous to the market will be highlighted by considering the trading profile of market members operating in financial market venues with state-of-the-art technological infrastructure [3].



- [1] Tumminello, M., Lillo, F. and Mantegna, R.N., 2010. Correlation, hierarchies, and networks in financial markets. *Journal of economic behavior & organization*, 75(1), pp.40-58.
- [2] Tumminello, M., Micciche, S., Lillo, F., Piilo, J. and Mantegna, R.N., 2011. Statistically validated networks in bipartite complex systems. *PloS one*, 6(3), p.e17994.
- [3] Musciotto, F., Piilo, J. and Mantegna, R.N., 2021. High-frequency trading and networked markets. *Proceedings of the National Academy of Sciences*, 118(26), p.e2015573118.

TEAMS extended link:

<https://teams.microsoft.com/l/meetup-join/19%3a8f9ec19800e7467ab9bae6e627dfcb21%40thread.tacv2/1664733440842?context=%7b%22Tid%22%3a%22ffb4df68-f464-458c-a546-00fb3af66f6a%22%2c%22Oid%22%3a%2234c00d0e-4085-4def-be95-f11f6239bc3d%22%7d>