



Avviso di Seminario

Venerdì 17 Giugno 2016 alle ore 12:00

presso l' Aula AP1

del Dipartimento di Fisica e Chimica

Viale delle Scienze, Edificio 18, Palermo

il

Dr. Alessio Emanuele Biondo

del **Department of Economics and Business**

University of Catania

terrà un seminario dal titolo:

A Multi-Quantity Order Book Model

Abstract

***Abstract:** This paper presents a model of order book dynamics with unconstrained order quantity. Agents are heterogeneously classified in two groups, namely fundamentalists and chartists: both types assume their trading decisions according to their expectations, formed with respect to relevant variables –i.e. fundamental values and past trends, respectively. It is worth to notice that both fundamental values (for fundamentalists) and trends averages (for chartists) are allowed to be different for each agent. Therefore, the proposed form of heterogeneity is not just a matter of separating two communities of traders who behave referring to the same variable: it is, instead, a personal characterization that differentiates individual behaviors also within each community. However, for the sake of simplicity, just a single asset is traded and, also, agents are placed on a complete network where each trader may exchange with everyone else. In the largest part of the existing models of order books, the traded quantity is usually kept fixed to one. This reduces, to some extent, the attitude of the model to represent the market microstructure. A solution is suggested here, by proposing a simple toy model where agents decide how much shares to buy/ to sell according to their monetary endowments, distributed at the beginning of the simulation. This also accounts for past gains and past losses –that is, nobody will be able to buy in case all the money has been spent or, correspondingly, nobody can sell in case has no assets in portfolio. The capability to reproduce stylized facts of financial markets, in comparison with other existing models, is presented in order to assess the descriptive gain of the proposed setting.*

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