SCUOLA
NORMALE
SUPERIORE

NO FREE LUNCH SEMINAR

seminari di finanza quantitativa

mercoledì 14 dicembre 2011

ore 13.00

Scuola Normale Superiore
Pisa
(Aula Bianchi)

Emmanuel BACRY

Ecole Polytechnique

Terrà un seminario dal titolo:

"Modelling Microstructure using Multivariate Hawkes Processes"

Abstract

Hawkes processes are used for modelling tick-by-tick variations of a single or of a pair of asset prices. For each asset, two counting processes (with stochastic intensities) are associated respectively to the positive and negative jumps of the price. We show that, by coupling these intensities using a kernel function, one can reproduce high-frequency mean reversion structure as well as Epps effect which are both characteristic of the microstructure. We define a numerical method that provides a non-parametric estimation of the kernel shape, it is find to be slowly decaying (power-law) suggesting a long memory nature of self-excitation phenomena at the microstructure level of price dynamics. The consequences for market impact are discussed using a model very simple model for exogeneous trades.

Tutti gli interessati sono invitati a partecipare.

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06/12/2011