Dipartimento di Statistica e Metodi Quantitativi

Venerdì 16 Settembre 2016 ore 12.00

(edificio U7, 4° piano, stanza 4054)
Via Bicocca degli Arcimboldi, 8 – 20126 Milano

Dependence structure in multivariate time-series and copula functions

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Abstract

Copula functions are largely used for describing the dependence structure of multivariate time series. The success is due to their high flexibility. The dependence structure is defined separately from the marginal distributions.
Moreover, different copulas with the same linear correlation can exhibit very different dependence between extreme values.
In this seminar an overview of the copula functions is provided considering both the class of Archimedean copulas and the class of elliptical copulas. The most popular estimation strategies are commented.
Finally, two applications in financial econometrics are presented: a bivariate GARCH model with the joining distribution of the returns described by a copula function
and a clustering of financial time series given tail dependence-based dissimilarity measures.

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