## Seminar:



Tuesday, October 5th 2021, 04:00 pm

Aula Scuola Specializzazione, DIFC, Viale delle Scienze Ed. 18

## High-Order Statistical Dependencies in Complex Systems: Applications to Physiology, Music and Finance

(JPEG; max 300 x 250)

## Dr. Tomas Scagliarini, Università degli Studi di Bari

Keywords: Information transfer, Transfer Entropy, Granger causality

The abstract of the seminar can be viewed at the following link

**Abstract:** The analysis of statistical dependencies is crucial for understanding the staggering complexity of structures and behaviours manifested in biological, economic and social systems. When a system has more than two variables, the pairwise description fails to detect high-order effects, which could be important in many applications. In this seminar we address the problem of how to dissect statistical dependencies in multi-body systems, applying different methodologies to various real world scenarios, spanning from physiological data, financial markets, and the 4 voices chorales from J.S.Bach.