

Statistics Seminar
Department of Mathematical Sciences

| | |
|------------------|---|
| DATE: | Friday, September 25, 2015 |
| TIME: | 2:30pm to 3:30pm |
| LOCATION: | WH 329 |
| SPEAKER: | Stanislav Volgushev, Cornell University |
| TITLE: | Copula based spectral analysis. |

Abstract

In this talk we discuss an alternative method for the spectral analysis of a strictly stationary time series. We define a “new” spectrum as the Fourier transform of the differences between copulas of the pairs with lag k and the independence copula. This object is called copula spectral density kernel and allows separating marginal and serial aspects of a time series. The copula spectral density kernel is substantially more informative than the “classical” spectral density obtained from the auto-covariances. In particular, it provides a complete description of the distributions of all pairs with arbitrary lag. We introduce a way to estimate of copula spectral density kernels, comment on the asymptotic properties of the proposed estimator, and discuss several possible extensions.

Itinerary

| Itinerary | |
|------------------|---------------|
| 9:00 - 11:00 | Zuofeng Shang |
| 11:00 - 11:30 | Qiqing Yu |
| 11:30 - 12:00 | Ganggang Xu |
| 12:00 - 1:00 | Lunch |
| 2:30 - 3:30 | Talk |
| 3:30 - | Break |

From:

<http://www2.math.binghamton.edu/> - **Binghamton University Department of Mathematical Sciences**

Permanent link:

<http://www2.math.binghamton.edu/p/seminars/stat/09252015>

Last update: **2015/09/24 04:34**

