



UNIVERSIDADE DA CORUÑA



## CONFERENCIA:

### “Local Gaussian Correlation. A New Measure of Dependence.”

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#### **Abstract**

For a bivariate Gaussian density the dependence is completely characterized by the correlation coefficient. A general bivariate density can be approximated by a family of Gaussian bivariate densities. In this way a local dependence measure is obtained by using the correlation of the approximating Gaussian density. A number of properties for the local correlation will be given such as limit theory, symmetry and tail dependence. The new dependence measure is perhaps of particular interest in applications to finance/econometrics, where it is well known that dependence between financial objects increases as the market is going down. One can describe this effect in a precise manner using local Gaussian correlation.

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