



Cambridge-INET Masterclass

with Prof. Wolfgang Karl Härdle



Copulae and time varying non Gaussian Dependency Structures

Time-varying and non-Gaussian dependencies for multivariate time-series are in demand for many economic models. Current models available suffer from the misfortune of dimensionality or restrictive assumptions on the parameters and the distribution. New promising classes of models are copulae that allow for non-exchangeable and non Gaussian dependency structures with a small number of parameters. For Hierarchical Archimedean Copulae (HAC) a

novel adaptive estimation technique based on Local Likelihood

Approximation (LPA) for the parameters and of

the structure of HAC in a time varying context is

presented. Typical applications are in the financial

field but also more recently in the spatial

analysis of climate parameters. An analysis

of time varying dependency structure of

stock indices and exchange rates reveals

periods with constant and turmoil dependencies.

The economic significance of the suggested

modelling is evaluated using Value-at-Risk of a

portfolio and the correction of the implied correlation

smile of, for example, CDO' s.



Wolfgang Karl Härdle

is the Ladislaus von Bortkiewicz Chair of Statistics in Humboldt Universität zu Berlin. Distinguished Guest Professor at Xiamen University and international advisor to Beijing University.

Location: Winstanley Lecture Theatre, Trinity College, University of Cambridge

Date: 28 - 29 May 2014

Cost: Cambridge members free,

HE price £ 50, other delegates £ 1,000

To register please visit:

www.inet.econ.cam.ac.uk/our-events/master-class2



Institute for
New Economic Thinking



UNIVERSITY OF
CAMBRIDGE
Faculty of Economics