

4th Workshop on Vine Copula Distributions and Applications

Programme: Day 1, Wednesday 11th May, 2011

8:30 - Registration open

9:00 - 9:15 Welcome and Introduction

Session 1 Vine PCCs and Computing Issues (Chair: Harry Joe)

9:15 - 9:55 **Claudia Czado** Technische Universität München
The World of Vines

9:55 - 10:20 **Kjersti Aas** Norwegian Computing Center
Faster C- and D-Vine Simulations

10:20 - 10:45 **Ulf Schepsmeier and Eike C. Brechmann** Technische Universität München
CDVine: An R-package for statistical inference of C- and D- Vines

Coffee Break

Session 2 Discrete Data and Bayesian Model Selection (Chair: Peter X.-K. Song)

11:15 - 11:55 **Anastasios Panagiotelis** Technische Universität München
Pair Copula Constructions for Discrete Data

11:55 - 12:35 **Michael S. Smith** Melbourne Business School
Estimation of Copula Models with Discrete Margins

12:35 - 13:00 **Jakob Stöber** Technische Universität München
Markov Switching Vine Copulas

Lunch

Session 3 Directed Acyclic Graph (DAG) Copulas (Chair: Thomas Klein)

14:30 - 15:10 **Alexander Bauer** Technische Universität München
Pair Copula Constructions for Non-Gaussian DAG Models

15:10 - 15:35 **Anca Hanea** Delft University of Technology
Parameter Estimation Using Dynamic Non Parametric Bayesian Networks

15:35 - 16:00 **Tamás Szántai** Budapest University of Technology and Economics
Vine-Copulas as a Mean for the Construction of High Dimensional Probability Distribution Associated to a Markov Network

Coffee Break

Session 4 Vine Regression and Tail Dependence (Chair: Roger Cooke)

16:30 - 17:10 **Dorota Kurowicka** Delft University of Technology
Parametric and Non-parametric Vine Regression

17:10 - 17:35 **Aristidis K. Nikoloulopoulos** University of East Anglia
Vine Copulas with Asymmetric Tail Dependence and Applications to Financial Return Data

17:35 - 18:00 **Haijun Li** Washington State University
A Tail Density Approach in Extremal Dependence Analysis for Vine Copulas

18:30-20:00 Dinner and Poster Session

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Programme: Day 2, Thursday 12th May, 2011

Session 1 Truncated Vines and Estimation (Chair: Claudia Czado)

- 9:00 - 9:40 **Harry Joe** University of British Columbia
Truncated Vine and Factor Copula Models
- 9:40 - 10:20 **Eike C. Brechmann** Technische Universität München
Truncated Regular Vines in High Dimensions with Application to Financial Data
- 10:20 - 10:45 **Ingrid Hobæk Haff** Norwegian Computing Center
Comparison of Estimators for Pair-Copula Constructions

Coffee Break

Session 2 Time-Varying Vines (Chair: Kjersti Aas)

- 11:10 - 11:35 **Ostap Okhrin** Humboldt-Universität zu Berlin
Local Estimation of Time-Varying Vines
- 11:35 - 12:00 **Hans Manner** University of Cologne
Recent Developments in Time-Varying Copulas with Extensions to Vines
- 12:00 - 12:10 **Short Break**

Session 3 Financial Applications of Vines (Chair: Hans Manner)

- 12:10 - 12:35 **Andrew Vesper** Harvard University
Extensions of the Pair-Copula Construction with Application to Default Correlation
- 12:35 - 13:00 **Marco Geidosch** University of Regensburg
Application of PCC to Credit Portfolio Risk

Lunch

Session 4 Vines and Spatial Applications (Chair: Michael Smith)

- 14:25 - 15:05 **Peter X.-K. Song** University of Michigan
Composite Estimating Equations in Geo-Vine-Copula Models for Spatially Clustered Data
- 15:05 - 15:30 **Benedikt Gräler** University of Münster
Vine Copulas for Spatial Interpolation
- 15:30 - 15:55 **Sander Vandenberghe** Ghent University
Making a Bridge Between 'Conditional Mixtures' and 'Vines' in a Hydrological Context

Coffee Break

Session 5 Model Selection and Invariance (Chair: Dorota Kurowicka)

- 16:25 - 16:50 **Piotr Jaworski** University of Warsaw
On Vine Copulas Invariant Under Univariate Conditioning
- 16:50 - 17:15 **Julius Schnieders** University of Cologne
Pair-Copula Constructions: Model Selection and Goodness-of-Fit

17:15 Discussion and Closing - The Art of Vine (and Wine!) Making Reception