

Vine copulas as a way to describe and analyze multi-variate dependence in econometrics: computational motivation and comparison with bayesian networks and fuzzy approaches

Songsak sriboonchitta, jianxu liu, vladik kreinovich, and Hung t. Nguyen

Abstract

In the last decade, vine copulas emerged as a new efficient Techniques for describing and analyzing multi-variate dependence In econometrics; see, e.g., [1-3, 7, 9-11, 13, 14, 21]. Our experience has Shown, however, that while these techniques have been successfully applied To many practical problems of econometrics, there is still a lot of Confusion and misunderstanding related to vine copulas. In this paper, We provide a motivation for this new technique from the computational Viewpoint. We show that other techniques used to described dependence – bayesian networks and fuzzy techniques – can be viewed as a particular Case of vine copulas.

ABSTRACT

THE 7TH INTERNATIONAL CONFERENCE OF THE THAILAND ECONOMETRIC SOCIETY (TES 2014)

*'Modeling Dependence
in Econometrics'*

8th - 10th January, 2014

at Faculty of Economics,
Chiang Mai University
THAILAND





The Seventh International Conference of the Thailand Econometric Society

TES2014

ABSTRACT

Organized by

The Thailand Econometric Society
Chiang Mai School of Economics
Department of Agricultural Economics, CMU
School of Economics and Public Policy, Srinakharinwirot University
School of Development Economics, National Institute of
Development Administration
Department of Economics, Khon Kaen University
Faculty of Economics, Kasetsart University

8th – 10th January, 2014

**At Chiang Mai School of Economics
Chiang Mai University, Chiang Mai, Thailand**