Universität Karlsruhe (TH)
**Fakultät für Wirtschaftswissenschaften**

**KIT**
Karlsruhe Institute of Technology

# V**o**r träge zum Operations Research

## Kolloquium des Instituts für Operations Research

*Zeit:*        Donnerstag, 6. Juni 2019, 17:30 Uhr

*Ort:*        Raum SR 0.019, Gebäude 20.30

*Es spricht:*        Dr. Sebastian Fuchs, Fakultät für Statistik, Technischen Universität Dortmund

*Zum Thema:*        **Dissimilarity functions for copula-based hierarchical clustering of continuous variables**

*Abstract:*        We introduce and formalize a copula-based notion of dissimilarity between continuous random variables. Such a concept aims at detecting rank-invariant dependence properties among random variables and, as such, it will be defined as a functional on the collection of all copulas. We show how the provided definition includes previous dissimilarity measures considered in the literature like those derived from measures of association and tail dependence but also those of agglomerative hierarchical type. In the latter case, it turns out that the related clustering procedure does not consider the higher-dimensional dependencies among the involved random variables.

Finally, we compare novel proposed clustering algorithms (taking into account higher-dimensional dependencies) with classical agglomerative clustering methods.

**Die Vorträge zum Operations Research wenden sich an alle Interessierten!**

Bei Rückfragen wenden Sie sich bitte an:

Prof. Dr. Oliver Grothe, Institut für Operations Research.