Use or abuse of copulas

Over the last few years copulas have become popular means as probabilistic models for describing risks. Among others, they have found applications in financial and actuarial risk management, for example in the context of credit risk. In 2007, copulas will become one of the models for extremes recommended by the International Actuarial Association, see Research Report of the Insurer Solvency Assessment Working Party of the IAA *A global framework for Insurer Solvency Assessment* or U. Lindner and V. Ronkainen *Solvency II- Towards a new insurance supervisory system in the EU*, Scand. Act. J., No 6, 2004.

A search on scholar.google.com gives about 10000 references to publications containing the word "copula". Many of the references are in the context of probabilistic copulas. A striking observation is that in almost all publications on the topic of probabilistic copulas the authors mention that, on the one hand, copulas are models for extremal behavior, mostly in the context of finance and insurance. On the other hand, they do not use any "genuine" methods of extreme value theory or extreme value statistics.

Because of this discrepancy it would be interesting to listen to what specialists in extreme value theory have to say about the use or abuse of copulas for modeling and statistical analyses of extremes. (In particular, since it has also become fashionable in the EVT community to write papers with the word "copulas" in the title...) What the author of these lines thinks about copulas, can be read in his article on www.math.ku.dk/∼mikosch/Preprint/Schaafsma. Notice that it is not claimed in that paper that multivariate extreme value theory is superior to using copulas, but there exist a couple of problems with the choice of a copula model and with statistical estimation problems.

It is the aim of a one-hour-discussion during the meeting to shed some light on the use of copulas. The author of these lines will give a short introduction and invite some of the specialists present to comment on the correct or incorrect use of copulas and their potential in the framework of EVT.

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