

Modelling and simulation of dependence structures in nonlife insurance with Bernstein copulas

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Abstract: In this paper we review Bernstein and grid-type copulas for arbitrary dimensions and general grid resolutions in connection with discrete random vectors possessing uniform margins. We further suggest a pragmatic way to fit the dependence structure of multivariate data to Bernstein copulas via grid-type copulas and empirical contingency tables. Finally, we discuss a Monte Carlo study for the simulation and PML estimation for aggregate dependent losses from observed windstorm and flooding data.