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Applications of Exchangeable Copula Models

Exchangeable multivariate copulas, especially those in the Archimedean family, are used to model a within cluster correlation. New copula based estimators of the intra-cluster correlation for both discrete and continuous data are discussed. Copulas provide alternatives to the inclusion of a random cluster effect in a model to account for a within cluster dependency; some properties of copula based predictions of the cluster mean value will be given. This will allow the construction of unit level small area predictions using copulas.