

Local Copula Quantile Regression

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Development of new methodologies for high-dimensional data analysis has exploded over the last decade in an effort to mine interesting information from the data. Sklar theorem based Copula can help to describe the dependence between high-dimensional random variables via marginal distributions. We study nonparametric copula quantile regression estimation by kernel weighted local quadratic fitting. We show that a d -dimensional local multivariate copula quantile can be estimated by $d(d+1)/2$ times of local univariate mean regression. We apply the methods to modelling of the time-varying joint distribution of the several exchange rates.

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