

Special Issue on **Quantile Regression and Beyond in Statistical Analysis of the Data**

CALL FOR PAPERS

Regression is used to quantify the relationship between a response variable and some covariates. Standard mean regression has been one of the most important statistical methods for applied research for many decades. Standard mean regression aims to estimate the conditional expectation of the response variable given the covariates. However, it is not robust to nonnormal errors and outliers of the data. Quantile regression has emerged as a useful supplement to standard mean regression. It is robust to outliers in observations and makes very minimal assumptions on the error distribution and thus is able to accommodate nonnormal errors. It offers a more complete statistical model than standard mean regression and now has widespread applications. The value of “going beyond the standard mean regression” has been illustrated in many scientific subjects in economics, ecology, education, finance, survival analysis, microarray study, growth charts, and so on. In addition, inference on quantiles can accommodate transformation of the outcome of the interest without the problems encountered in standard mean regression. There has been a great deal of recent interest in Bayesian approaches to quantile regression models and the applications of these models. In these approaches, uncertain parameters are assigned prior distributions based on expert judgment and updated using observations through the Bayes formula to obtain updated posterior probability distributions.

This special issue aims at highlighting quality papers that propose advances in modelling and applications in quantile regression.

Potential topics include but are not limited to the following:

- ▶ Quantile regression model and estimation
- ▶ Bayesian Quantile Regression using data augmentation
- ▶ Gibbs sampling methods for Bayesian Quantile Regression
- ▶ Posterior consistency of Bayesian Quantile Regression
- ▶ New methodology in quantile regression
- ▶ Model selection
- ▶ Nonparametric quantile estimation
- ▶ Panel data quantile regression models
- ▶ Censored quantile regression models
- ▶ Binary and ordinal quantile regression models
- ▶ Multivariate quantile regression
- ▶ Single- or multi-index quantile regression

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/jps/qrsa/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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