



Analysis of Brazil's presidential election via Bayesian spatial quantile regression

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We show an extension of Bayesian quantile regression models when the response variable is reported as a proportion and spatial correlation is present. We are specially interested in the data of the last presidential election in Brazil, which was decided by 2% of the valid votes, approximately. Current literature on the subject focuses only on the conditional mean of the proportion of votes and its association with other variables. Being so, we use quantile regression models to show how some sociodemographic variables are associated with different quantiles of the distribution of votes in this close election, while considering the spatial correlation present in the data.

Keywords: Asymmetric Laplace predictive process; second keyword; third keyword; fourth keyword.