the paper develops a nonparametric model-based quantile regression. quantile regression is often used for inference about quantiles and the response distribution. Naturally, one would want the distribution on the quantiles as it can tell you more than just the man. Most existing approaches to quantile regression use the additive regression framework where errors are assumed to be independent from a distribution with path quantile equal to 0. The drawback is that the model must be refit separately for each corresponding p.

The author's choice of mixture kernel is the multivariate normal, so the joint density for z is through a DP mixture of multivariate normals. The hyper prior for the DP mixture model roughly centers and scales the mixture model using prior information that identifies the subset where the data are expected to be supported.

One application is for moral hazard data to investigate the relationship between shareholder concentration and several indexes for managerial moral hazard.