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Guy-vanie M Miakonkana* (gmm0006@auburn.edu) and **Ashere Abebe**. *Rank-based estimation for generalized linear models.*

In this paper we consider the estimation of parameters of a generalized linear regression model. An estimator defined iteratively, starting from an initial obtained by minimizing the Wilcoxon dispersion function for independent errors, is considered. The consistency and the asymptotic normality of the initial estimator as well as the asymptotic normality of the updated estimator are proved under minimal assumptions. Like in linear model, the procedure results in estimators that are robust in the response space. We present results of a simulation study as well as real world data example to illustrate the robustness and efficiency of the estimator. (Received September 03, 2011)