1106-VI-575 **Huybrechts F. Bindele*** (hbindele@southalabama.edu), 411 University Blvd. N., ILB 316, Dept. of Mathematics & Statistics, Mobile, AL 36688-0002, and **Yichuan Zhao** (yichuan@gsu.edu), 726, 7th Floor, College of Education Building, Dept. of Mathematics & Statistics, Atlanta, GA 30303-3083. *Signed rank regression inference via empirical likelihood.*

For the general stochastic regression analysis of complete data, Bindele and Abebe (2012) proposed the signed rank estimator. However, there exists an over-coverage problem for the confidence intervals of the regression parameters when the sample size is small. In this paper, we investigate an empirical likelihood approach to construct confidence intervals for the regression parameters based on the signed-rank estimating equation. The limiting distribution of log-empirical likelihood ratio is χ^2 distribution. We carry out extensive simulation studies to compare the proposed method with the normal approximation based method. The simulation results show that the proposed methods outperform the existing method in terms of the coverage probability and average length of confidence intervals. We illustrate the empirical likelihood method using a real data example. (Received September 02, 2014)