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36849. *Generalized Signed-Rank Estimation for Nonlinear Models with Multidimensional Indices.*

We consider a nonlinear regression model when the index variable is multidimensional. Sufficient conditions on the nonlinear function are given under which the Signed-Rank estimators are strongly consistent and asymptotically normally distributed. These sufficient conditions are satisfied by harmonic type functions, which are also of interest in the one dimensional index case where some of results in the current literature are not applicable. (Received August 15, 2013)