
YANG ZHAO, University of Regina

Robust Imputation to Unified Approach for Regression Models with Data Missing by Design

Multiple imputations are widely used in statistical analysis with missing data. However, valid inference based on imputed full data depends on the “correctness” of the imputation models for the missing data especially when the missing percentage is high. In this article we describe a robust imputation to unified approach for regression models with data missing under two-stage studies, where parameter estimation and inference are valid even when the imputation models are not correct. Our simulation studies in various settings indicate that the performance of the proposed method is acceptable for practical implementation.