



## **Multiple Imputation using Regularised Iterative Multiple Correspondence Analysis**

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The occurrence of non-response in survey data is a prevalent problem, often leading to invalid inferences and inefficient estimates. The application of a regularised iterative multiple correspondence analysis (RIMCA) algorithm in single imputation (SI) has been suggested for the handling of missing categorical data in survey analysis. In this paper an adapted version of this algorithm is applied as a multiple imputation (MI) technique and compared to the published results. A comparison is drawn between the performance of SI and MI making use of RIMCA for both simulated and survey data. It was found that the MI procedure allowed for better estimates and wider confidence intervals (as expected from a valid imputation procedure).

**Keywords:** incomplete ordinal categorical data, principal component analysis.