

Generalized Canonical Correlation Analysis of Matrices with Different Row Order

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Abstract

A method is offered that makes it possible to apply CANCOR, a generalization of canonical correlation analysis proposed by Carroll (1968), to two or more matrices of different row and column order. The new method optimizes the usual CANCOR objective by considering only the observed values. This is achieved by employing selection matrices. In a simulation study we assess the performance of our new method and compare it to an existing procedure called GENCOM, proposed by Green and Carroll (1988). We find that our new method outperforms the GENCOM algorithm both with respect to model fit and recovery of the true structure. Moreover, as our new method does not require any type of iteration it is easier to implement and requires less computation.

References

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