Title: **Canonical Analysis, Reduced Rank Regression, and Cointegration**

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Abstract:

The cointegrated model considered here is a nonstationary vector autoregressive process in which some linear functions are stationary and others are random walks. The statistical problems, such as estimation of the parameters and tests of hypotheses of dimensionality of the stationary part, are put in the context of the canonical correlations between the current vector and the relevant vector of the past of the process. The asymptotic distributions of the canonical correlations and the canonical vectors under the assumption that the process is Gaussian are found. The maximum likelihood estimator of the coefficients of the autoregressive process is a transform of the reduced rank regression estimator of the coefficients of the error-correction form. The asymptotic distribution of this estimator does not depend on the process being Gaussian.