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Explicit estimators under m-dependence for a multivariate normal distribution

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Abstract The problem of estimating parameters of a multivariate normal p-dimensional random vector is considered for a banded covariance structure reflecting m-dependence. A simple non-iterative estimation procedure is suggested which gives an explicit, unbiased and consistent estimator of the mean and an explicit and consistent estimator of the covariance matrix for arbitrary p and m.

Keywords Banded covariance matrices · Covariance matrix estimation · Explicit estimators · Multivariate normal distribution