Generalized uniform correlation structure in the growth curve model

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We consider classical growth curve model in the form

$$Y_{n\times p} = X_{n\times m}B_{m\times r}Z_{r\times p} + \varepsilon_{n\times p}, \quad E\varepsilon = 0, \quad \text{var vec}(\varepsilon) = \Sigma_{p\times p} \otimes I_n,$$

X being an ANOVA design matrix and Z being a regression design matrix, where $\Sigma = \theta_1 G + \theta_2 ww'$, $G \geq 0$, $w \in \mathcal{R}(G)$.

We study and compare properties of three different proposed estimators of the variance parameters θ_1 and θ_2 (see [1], [3], [2]).

References

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