fitAutoReg: Staging

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Staging...
The log-likelihood function of the random-effect multivariate meta-analysis is given by

$$\ell\left(\boldsymbol{\alpha}, \boldsymbol{\Psi}; \boldsymbol{\beta}_i\right) = -\frac{1}{2}\left\{q \log\left(2\pi\right) + \log\left[\det\left(\boldsymbol{\Psi} + \boldsymbol{\Theta}_i\right)\right] + \left(\boldsymbol{\beta}_i - \boldsymbol{\alpha}\right)' \left(\boldsymbol{\Psi} + \boldsymbol{\Theta}_i\right)^{-1} \left(\boldsymbol{\beta}_i - \boldsymbol{\alpha}\right)\right\} \tag{1}$$

where $\boldsymbol{\beta}_i$ is the vector of parameter estimates for the i^{th} person,, q is the length of $\boldsymbol{\beta}_i$, $\boldsymbol{\Theta}_i$ is the sampling variance-covariance matrix of $\boldsymbol{\beta}_i$, $\boldsymbol{\alpha}$ is the vector of means of the random-effect, and $\boldsymbol{\Psi}$ is the variance-covariance matrix of the random-effect.

References

R Core Team. (2023). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. Vienna, Austria. https://www.R-project.org/