

Laplace iterations stops

Description

In some cases when Laplace is used as method of estimation for non-linear models, the iterative procedure will terminate prematurely with a message indicating that it is unable to continue due to inability to produce acceptable estimates of the variance-covariance components.

Solution

- Examine the tau-matrix printed in the output file. Small values on the diagonal of this matrix indicate the variable causing this problem.
- Also check the tau (as correlations) matrix shown in the output. This follows directly after the tau-matrix. High correlations may also indicate the problem variable.
- It may also be that one or more of the OLS level-1 regressions produced extreme values. Review the OLS estimates for all groups to find such cases. If this is the source of the problem, use the option to manually reset the tau(0) matrix on the **Iteration Settings** dialog box accessed via the **Other Settings** menu.

Try centering the predictors involved or removing the random effects associated with the diagonal elements of tau causing the problem. Deciding which level-1 effect to keep random and which to change to non-randomly varying should be based on theory and research purposes.

For more information on multicollinearity, see the FAQ dealing with this topic.