

Estimation of non-linear models

For some of the non-linear models (dichotomous outcomes) in HLM, you have the choice of choosing the method of estimation: Penalized Quasi-likelihood (PQL) or maximum likelihood (ML) may be selected. If the level-2 variance components are small (for example, variance of the random intercept about 0.5 or less), the answers will be very similar for a reasonably large data set. For larger variance components, ML will provide better estimates than PQL but can be computationally intensive, which is also the case when adaptive quadrature is selected as method of estimation. Models for which ML or quadrature are not available, are estimated via PQL.