**Section 1 Kenward-Rogers Correction**

* Roy proposes Kenward-Roger correction whenever one has replicated or repeated measures data, or missing data.
* Kenward-Roger approximations are not available in lme4. Douglas Bates has declined to spend effort implementing K-R correction because:
  + He's not convinced of the appropriateness of adjusting F-distribution degrees of freedom in this way,
  + He doesn't think that the K-R algorithm will be feasible for the sorts of large-data problems he's interested in,
  + He finds the correspondence between K-R's notation and his difficult.

*Referring to the "Satterthwaite and Kenward-Roger corrections" gives*

*the impression that these are well-known formulas and implementing*

*them would be a simple matter of writing a few lines of code. I don't*

*think it is.*

*I would be very pleased to incorporate such code if it could be written but, as I said, I don't even know if such things are defined in the general case, let alone easy to calculate.*

* The function gls() does not provide the Kenward-Rogers adjustments, so the results will be somewhat different from SAS.
* In both nlme and lme4, an implementation is almost certainly possible, although probably complicated and perhaps at the expense of all computational efficiency.