ImerTest Package: Tests in Linear Mixed Effects Models - DTU Orbit (03/11/2019)

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One of the frequent questions by users of the mixed model function lmer of the lme4 package has been: How can I get p values for the F and t tests for objects returned by lmer? The ImerTest package extends the 'lmerMod' class of the lme4 package, by overloading the anova and summary functions by providing p values for tests for fixed effects. We have implemented the Satterthwaite's method for approximating degrees of freedom for the t and F tests. We have also implemented the construction of Type I - III ANOVA tables. Furthermore, one may also obtain the summary as well as the anova table using the Kenward-Roger approximation for denominator degrees of freedom (based on the KRmodcomp function from the pbkrtest package). Some other convenient mixed model analysis tools such as a step method, that performs backward elimination of nonsignificant effects - both random and fixed, calculation of population means and multiple comparison tests together with plot facilities are provided by the package as well.

General information
Publication status: Published
Organisations: Department of Applied Mathematics and Computer Science, Statistics and Data Analysis
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Number of pages: 26
Publication date: 2017
Peer-reviewed: Yes

Publication information
Journal: Journal of Statistical Software
Volume: 82
Issue number: 13
ISSN (Print): 1548-7660
_ratings: BFI (2017): BFI-level 2
Scopus rating (2017): CiteScore 16.32 SJR 13.802 SNIP 9.454
Web of Science (2017): Impact factor 22.737
Web of Science (2017): Indexed yes
Original language: English
Electronic versions:
ImerTestJStatSoft2017.pdf
DOIs:
10.18637/jss.v082.i13

Bibliographical note
This work is licensed under the licenses
Paper: Creative Commons Attribution 3.0 Unported License
Source: PublicationPreSubmission
Source ID: 140538419
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review