

Package ‘multilevelmod’

June 17, 2022

Title Model Wrappers for Multi-Level Models

Version 1.0.0

Description Bindings for hierarchical regression models for use with the 'parsnip' package. Models include longitudinal generalized linear models (Liang and Zeger, 1986) <[doi:10.1093/biomet/73.1.13](https://doi.org/10.1093/biomet/73.1.13)>, and mixed-effect models (Pinheiro and Bates) <[doi:10.1007/978-1-4419-0318-1_1](https://doi.org/10.1007/978-1-4419-0318-1_1)>.

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URL <https://github.com/tidymodels/multilevelmod>,
<http://multilevelmod.tidymodels.org/>

Depends parsnip (>= 1.0.0), R (>= 2.10)

Imports dplyr, lme4, purrr, rlang, tibble, withr

Suggests covr, gee, ggplot2, knitr, nlme, rmarkdown, spelling,
testthat, tidymodels

VignetteBuilder knitr

Config/Needs/website tidymodels/tidymodels, tidyverse/tidytemplate

Encoding UTF-8

Language en-US

LazyData true

RoxygenNote 7.2.0

NeedsCompilation no

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Repository CRAN

Date/Publication 2022-06-17 12:00:02 UTC

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longitudinal_counts	<i>Simulated longitudinal Poisson counts</i>
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Description

Simulated longitudinal Poisson counts

Details

These are simulated data of 100 subjects each with 10 time points and an additional numeric covariate. The linear predictor has a random standard normal intercept per subject, a time coefficient of 1.50, and a covariate coefficient of 0.25.

Value

longitudinal_counts
a tibble

Examples

```
data(longitudinal_counts)
str(longitudinal_counts)
```

msa_data	<i>Measurement systems analysis data</i>
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Description

Measurement systems analysis data

Details

A biological assay (i.e. a lab test) was run on 56 separate samples twice. The goal is to measure what percentage of the total variation in the results is related to the measurement system and how much is attributable to the true systematic difference (sample-to-sample).

Value

msa_data a tibble

Examples

```
data(msa_data)
str(msa_data)
```

riesby	<i>Imipramine longitudinal data</i>
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Description

Imipramine longitudinal data

Details

These data are from a longitudinal clinical trial for depression. The outcome is the change in depression scores week-to-week. The endogenous column is an indicator for whether the subject fit the WHO Depression Scale classification of endogenous. The imipramine and desipramine columns are measurements of plasma levels for both substances.

Value

riesby a tibble

Source

Reisby, N., Gram, L.F., Bech, P. et al. Imipramine: Clinical effects and pharmacokinetic variability. *Psychopharmacology* 54, 263-272 (1977).

Examples

```
data(riesby)
str(riesby)
```

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