

Package: crashbayes (via r-universe)

October 8, 2026

Title Crash Course On Bayesian Regression Modelling

Version 0.1.0

Description Code, data and vignettes for a short (< 1 day) practical course on Bayesian Statistics.

License GPL (>= 3)

Encoding UTF-8

Roxygen list(markdown = TRUE)

RoxygenNote 7.2.3

Suggests knitr, rmarkdown, bookdown

VignetteBuilder knitr

Imports bayesplot, broom, cowplot, distributional, dplyr, forcats, ggdist, ggplot2, ggtext, kableExtra, rstanarm, tibble, tidyr, tidybayes

Depends R (>= 2.10)

LazyData true

Config/pak/sysreqs

cmake libfontconfig1-dev libfreetype6-dev libfribidi-dev libglpk-dev make libharfbuzz-dev libicu-dev libjpeg-dev libpng-dev libuv1-dev libxml2-dev libssl-dev zlib1g-dev

Repository <https://cirad-astre.r-universe.dev>

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Contents

best	2
dlogitnorm	2
sigma_ci	3

Index	4
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best

*Bayesian Estimation Supersedes the t Test (BEST)***Description**

Example data from Kruschke (2013) used to compare the quantitative means of two groups using Null-Hypothesis Significance Testing and Bayesian Estimation

Usage

best

Format

best:

A data frame with 89 rows and 2 columns:

group Factor with levels 'drug' or 'placebo'

y Observed outcome of the IQ test for an individual

Details

Outcomes from two groups of people who take an IQ test. Group 1 ($N_1 = 47$) consumes a "smart drug" and Group 2 ($N_2 = 42$) is a control group that consumes a placebo

The data was simulated randomly from t distributions, in order to generate some outliers.

Source

<https://jkkweb.siteshost.iu.edu/BEST/>

References

John K. Kruschke, Journal of Experimental Psychology: General, 2013, v.142(2), pp.573-603. (doi: [10.1037/a0029146](https://doi.org/10.1037/a0029146))

dlogitnorm

*Logistic-Normal distribution density function***Description**

Probability density function of a variable whose logit is Gaussian.

Usage

```
dlogitnorm(x, mu, sd)
```

Arguments

x	Numeric vector. Evaluation value.
mu	Numeric vector. Mean of the latent Gaussian.
sd	Numeric vector. Standard deviation of the latent Gaussian.

References

https://en.wikipedia.org/wiki/Logit-normal_distribution

Examples

```
dlogitnorm(seq(0.1, 0.9, by = 0.1), 1, 1)
```

sigma_ci	<i>Confidence Interval for the residual standard deviation of a linear model</i>
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Description

Compute a Confidence Interval

Usage

```
sigma_ci(x, alpha)
```

Arguments

x	An object of class lm
alpha	

Value

A data.frame with 1 line and variables parameter, point_est, ll and hh.

References

See, for instance,

Examples

```
sigma_ci(lm(y ~ 1, data.frame(y = rnorm(1e3, sd = 2))), alpha = 0.05)
```

Index

* **datasets**
 best, [2](#)

best, [2](#)

dlogitnorm, [2](#)

sigma_ci, [3](#)