

Package: practicalbayes (via r-universe)

October 8, 2026

Type Package

Title Package for the doctoral training 'Régression bayésienne en pratique'

Version 0.1.16

Description Dependencies and datasets used in the training. No functionality is provided except a graphic theme. Only convenience setup.

License GPL-3

Imports agridat, cli, bayesplot, dplyr, ggdist, ggplot2, GLMsData, gridExtra, here, knitr, loo, posterior, purrr, readr, rmarkdown, rstanarm, rstudioapi, stringr, tibble, tidybayes, tidyr

Suggests embryogrowth

Encoding UTF-8

LazyData true

Config/roxygen2/version 8.1.0

Depends R (≥ 3.5)

URL <https://astre.gitlab.cirad.fr/practicalbayes>,
<https://cirad-astre.r-universe.dev/practicalbayes>

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

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fermentation	<i>Yeast fermentation kinetics</i>
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Description

Simulated data that explore the kinetics of 12 different yeast strains (*Saccharomyces cerevisiae*) when inoculated into Charonnay must.

Usage

`fermentation`

Format

A tibble with 528 rows and 5 columns:

- souche** Yeast strain.
- replicat** Replication code.
- jour** Day since inoculation.
- sucre_gL** Sugar concentration in g/L.
- log10_pop** Number of yeast cells par ml.

Details

The data was simulated to mimic real observations collected at the experimental facility and results from **Fanny Bordet**, **Chloé Roullier-Gall** et **Raphaëlle Tourdot-Maréchal** (UMR PAM, Institut universitaire de la vigne et du vin Jules Guyot, Dijon).

Source

Bordet F., Roullier-Gall C., Ballester J., Vichi S., Quintanilla-Casas B., Gougeon R. D., Julien-Ortiz A., Schmitt-Kopplin P., Alexandre H. (2021). Different wines from different yeasts? *Saccharomyces cerevisiae* intraspecies differentiation by metabolomic signature and sensory patterns in wine. *Microorganisms*, 9(11), 2327. <https://doi.org/10.3390/microorganisms9112327>

nestings	<i>Egg counts in nesting sites</i>
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Description

Egg counts in nesting sites of the leatherback turtle (*Dermochelys coriacea*) on a specific beach, Ya:lima:po Beach (formerly Les Hattes Beach), in French Guiana, which has been monitored since 1979, although there have been a few interruptions in the monitoring programme.

Usage

```
nestings
```

Format

A tibble with 1763 rows and 2 columns:

date Date of observation.

nombre Number of eggs.

Source

Girondot, M. (2010). Estimating density of animals during migratory waves: application to marine turtles at nesting site. *Endangered Species Research*, 12, 85-105. <https://doi.org/10.3354/esr00292>

pb_cols	<i>practicalbayes colours</i>
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Description

practicalbayes colours

Usage

```
pb_cols(x)
```

Arguments

x color name or object name (e.g. prior, likelihood, posterior)

<code>sigma_ci</code>	<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

<code>x</code>	An object of class <code>lm</code> .
<code>alpha</code>	Significance level.

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)
```

<code>theme_pb</code>	<i>ggplot themes with practicalbayes settings</i>
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Description

This ggplot theme uses specific colours and settings for the trining. The ‘large’ version uses a base size of 24.

Usage

```
theme_pb(base_size = 20, base_family = "sans")

theme_pb_large()
```

Arguments

<code>base_size</code>	base size
<code>base_family</code>	base font family

Value

a ggplot theme

Examples

```
library(ggplot2)
ggplot(data.frame(x = 1, y = 1)) +
  geom_point(aes(x, y)) +
  labs(title = "Main title") +
  theme_pb()
```

tsd

Temperature-dependent sex determination

Description

Experimental data on the influence of temperature in sexual determination of reptiles. Specifically, the olive ridley sea turtle (*Lepidochelys olivacea*).

Usage

```
tsd
```

Format

A tibble with 20 rows and 4 columns:

males, **females** Number of hatchings of each sex.

temp Nominal incubation temperature.

amplitude How much the temperature could fluctuate around nominal incubation temperature.

Details

This is a subset of the much larger [embryogrowth::DatabaseTSD] dataset, with selected variables and observations for educational purposes.

Each row contains the number of male and female hatchings for a given nominal incubation temperature and its fluctuation amplitude, in a experimental study.

Source

Girondot M (2026). `_embryogrowth: Tools to Analyze the Thermal Reaction Norm of Embryo Growth_`. doi:10.32614/CRAN.package.embryogrowth <<https://doi.org/10.32614/CRAN.package.embryogrowth>>. R package version 2026.8.24, <<https://CRAN.R-project.org/package=embryogrowth>>.

Abreu-Grobois, F. A., Morales-Mérida, B. A., Hart, C. E., Guillon, J.-M., Godfrey, M. H., Navarro, E., & Girondot, M. (2020). Recent advances on the estimation of the thermal reaction norm for sex ratios. *PeerJ*, 8, e8451. <https://doi.org/10.7717/peerj.8451>

vinestock	<i>Experimental vine stock data</i>
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Description

The educational dataset is derived from an experimental study of several wine-growing seasons.

Usage

```
vinestock
```

Format

A tibble with 240 rows and 8 columns:

area, subplot Experimental block (16 blocks across 3 areas)

vine_stock Vine identifier (80 individuals)

year Year of observation (2010-2012)

treatment Experimental treatment (5 levels)

yield Vine yield (g)

previous_pw Pruning weight (g) in the previous year

previous_pw_c Centred pruning weight (g)

Details

The study is based at an experimental vineyard that has been monitored over several years. Each row in the dataset corresponds to a ****vine** observed in a given year******.

Source

Guilpart, Nicolas. 'Relations Entre Services Écosystémiques Dans Un Agroécosystème à Base de Plantes Pérennes: Compromis Entre Rendement de La Vigne et Régulation de l'oïdium'. These de doctorat, Montpellier, SupAgro, 2014. <<https://theses.fr/2014NSAM0007>>.

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