Package 'vibass'

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Type Package

Title Materials for Introductory Course on Bayesian Learning

Version 1.0.3

Description Practicals, data sets, helper functions and interactive 'Shiny' apps used in the introductory course on Bayesian inference at the Valencia International Bayesian Summer School. Installing 'vibass' installs all the other packages used during the course and downloads all necessary materials for working off line.

License GPL-3

Depends R (>= 4.0)

Imports cli, dplyr, extraDistr, ggplot2, golem, knitr, lme4, magrittr, R2BayesX, rlang, rstudioapi, shiny (>= 1.5), tibble, tidyr,

Suggests spelling, bayesrules, coda, colorspace, cowplot, faraway, htmlwidgets, INLA, ISLR, LaplacesDemon, magick, MASS, MCMCpack, plotly, rmarkdown, pacman, png, spData, stringi

VignetteBuilder knitr

URL http://vabar.es/vibass/, https://github.com/VABAR/vibass

BugReports https://github.com/VABAR/vibass/issues

Encoding UTF-8

LazyData true

RoxygenNote 7.3.3

Additional_repositories https://inla.r-inla-download.org/R/testing

Language en-GB

NeedsCompilation no

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Repository CRAN

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Contents

`available_apps` *List available apps in {vibass} package.*

Description

App codes that are available for use in [vibass_app()].

Usage

```
available_apps()
```

Value

Character vector.

Character vector with available app codes in the package.

Examples

```
available_apps()
```

summary_table *Print a standardised summary table*

Description

Make a table of several summary statistics with proper formatting.

Usage

```
summary_table(
  mean,
  var,
  quant,
  ic95 = NULL,
  prop0 = NULL,
  prop1 = NULL,
  label,
  digits = 2,
  ...
)
```

Arguments

mean	Real.
var	Real.
quant	Named numeric vector. Names must be of the form "xx numeric xx. As from the output of the function quantile.
ic95	Numeric vector.
prop0	Real.
prop1	Real.
label	Character. Name of the summarised variable.
digits	Integer. Number of decimal places to be used.
...	Passed to knitr::kable().

Details

The table includes the mean, variance and standard deviation, a vector of 3 quantiles at 0.05, 0.50 and 0.95, a 95 numeric value to be interpreted as a proportion above 0 and 1. All values are rounded to the specified number of decimal places.

Value

A knitr_kable object.

Examples

```
summary_table(mean = 1, var = 1, quant = quantile(1:10, 0:4/4), ic95 = 4:5,
prop1 = .6, label = "test")
```

`vibass_app` *VIBASS interactive apps.*

Description

Launches the Shiny interactive applications for the practicals.

Usage

```
vibass_app(x = NULL)
```

Arguments

`x`	integer or character interpretable as integer. See [available_apps()] for valid options.

Value

With no arguments, displays a list of available app codes. Otherwise, launches the corresponding Shiny app.

Examples

```
vibass_app()
```

`Weights` *Weights of children*

Description

Data for the VIBASS session on linear models. This is a simulated dataset that includes data about children. The variables in the dataset are:

Usage

```
data("Weights")
```

Format

An object of class `"data.frame"`.

Details

- age. Age (in years).
- vegetables. Measure of vegetables consumption.
- weight. Weight (in kg).
- sex. Girl or Boy.
- height. Height (in cm).
- ethnicity Asian, Black or European.

Source

VIBASS Team.

Examples

```
data(Weights)
summary(Weights)

# ML estimates
lmW <- lm(weight ~ age, data = Weights)
summary(lmW)
```

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