

Package ‘shinyCLT’

February 27, 2025

Title Central Limit Theorem 'shiny' Application

Version 0.9.4

Description A 'shiny' application estimating the operating characteristics of the Student's t-test by Student (1908) <[doi:10.1093/biomet/6.1.1](https://doi.org/10.1093/biomet/6.1.1)>, Welch's t-test by Welch (1947) <[doi:10.1093/biomet/34.1-2.28](https://doi.org/10.1093/biomet/34.1-2.28)>, and Wilcoxon test by Wilcoxon (1945) <[doi:10.2307/3001968](https://doi.org/10.2307/3001968)> in one-sample or two-sample cases, in settings defined by the user (conditional distribution, sample size per group, location parameter per group, nuisance parameter per group), using Monte Carlo simulations Malvin H. Kalos, Paula A. Whitlock (2008) <[doi:10.1002/9783527626212](https://doi.org/10.1002/9783527626212)>.

Imports testthat, purrr, shiny, gamlss, dplyr, plotly, future, shinycssloaders, waiter, shinythemes, shinyWidgets, cachem, knitr

Depends R (>= 3.5.0)

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 CLT

Launch the Central Limit Theorem Shiny application

Description

This function starts a Shiny application that demonstrates examples of the Central Limit Theorem. The app is stored internally within the package and showcases various statistical principles through interactive visualizations. Check more details at `vignette("shinyCLT")`

Usage

```
CLT(n.cores = NULL, mode = "app", user_plan = "cluster")
```

Arguments

<code>n.cores</code>	Number of cores to use for calculations. Default value is NULL, which means that half of the cores will be used with the ceiling rounding rule.
<code>mode</code>	Change application behaviour when web browser tab or IDE preview is closed. By default this will end the running function and stop the local shinyApp. Switching to "server" mode will keep the shiny application running in a background even if all with application is closed.
<code>user_plan</code>	Specifies the parallelization strategy to use. Acceptable values are "cluster" (default), "multicore", or "multisession".

Value

Runs shinyApp

Examples

```
if(interactive()){
  CLT() # Launch the CLT demonstration app
}
```

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Description

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