Package 'StatTools'

April 7, 2025

Title All-in-One Chi Distribution CI

Version 0.1.1

Maintainer David Reese <reesedavid132@gmail.com>

Description Computes confidence intervals for variance using the Chi-Square distribution, without requiring raw data. Wikipedia (2025) <https://en.wikipedia.org/wiki/Chi-squared_distribution>. 'All-in-One Chi Distribution CI' provides functions to calculate confidence intervals for the population variance based on a chi-squared distribution, utilizing a sample variance and sample size. It offers only a simple all-in-one method for quick calculations to find the CI for Chi Distribution.

License MIT + file LICENSE

Imports stats

Suggests testthat

Encoding UTF-8

RoxygenNote 7.3.2

NeedsCompilation no

Author David Reese [aut, cre]

Repository CRAN

Date/Publication 2025-04-07 16:20:13 UTC

Contents

chi_var_ci_no_data *Compute Confidence Interval for Variance Without Raw Data*

Description

This function calculates the confidence interval for variance when only + the sample variance and sample size are known.

Usage

```
chi_var_ci_no_data(s2_given, n_given, conf_level)
```

Arguments

s2_given	Numeric. The sample variance.
n_given	Integer. The sample size.
conf_level	Numeric. The confidence level (e.g., 0.95 for 95% CI).

Value

A numeric vector with the lower and upper bounds of the confidence interval.

Examples

```
s2_given <- 21.5   # Sample variance
n_given <- 26      # Sample size
conf_level <- 0.98 # 98% confidence level
chi_var_ci_no_data(s2_given, n_given, conf_level)
```

Index