

Package ‘rbscCI’

July 23, 2025

Type Package
Title Blyth-Still-Casella Confidence Interval
Version 0.1.1
Date 2024-01-29
Description Provides a fast calculation of the Blyth-Still-Casella confidence interval. The implementation follows the 'StatXact' 9 manual (Cytel 2010) and ``Refining Binomial Confidence Intervals'' by George Casella (1986) <doi:10.2307/3314658>.
License GPL (>= 3)
Imports Rcpp
LinkingTo Rcpp, BH
RoxygenNote 6.0.1
Suggests testthat
NeedsCompilation yes
Author Shimeng Huang [aut, cre],
Keith Winstein [aut]
Maintainer Shimeng Huang <dora.huang.sunshine@gmail.com>
Repository CRAN
Date/Publication 2024-01-29 13:50:06 UTC

Contents

bscCI	2
cpCI	2
rbscCI	3
Index	4

bscCI	<i>Blyth-Still-Casella confidence interval</i>
-------	--

Description

Blyth-Still-Casella confidence interval

Usage

```
bscCI(n_tot, n_suc, conf, digits = 2)
```

Arguments

n_tot	Total number of experiments
n_suc	Number of successes
conf	Confidence level (1-alpha)
digits	Number of decimal places to be used

Details

Computes the exact Blyth-Still-Casella binomial confidence interval. The initial CI is the Clopper-Pearson confidence interval.

Value

A vector containing the confidence interval. If digits is given, both upper and lower limits are rounded to the given number of digits.

Examples

```
bscCI(100,25,0.95,digits = 3)
```

cpCI	<i>Clopper-Pearson confidence interval</i>
------	--

Description

Clopper-Pearson confidence interval

Usage

```
cpCI(n_tot, n_suc, conf, digits = 2)
```

Arguments

n_tot	Total number of experiments
n_suc	Number of successes
conf	Confidence level (1-alpha)
digits	Number of decimal places to be used

Details

Computes the Clopper-Pearson confidence interval.

Examples

```
cpCI(100, 25, 0.95)
```

rbscCI	<i>Blyth-Still-Casella Confidence Interval</i>
--------	--

Description

Blyth-Still-Casella Confidence Interval

Details

Provides a fast calculation of the Blyth-Still-Casella confidence interval.

Index

bscCI, [2](#)

cpCI, [2](#)

rbscCI, [3](#)

rbscCI-package (rbscCI), [3](#)