Package: rbscCI (via r-universe)

August 25, 2024

Type Package

Title Blyth-Still-Casella Confidence Interval

Version 0.1.0

Date 2020-07-05

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

Repository https://shimenghuang.r-universe.dev

RemoteUrl https://github.com/shimenghuang/rbscci

RemoteRef HEAD

RemoteSha 4f28e044ee74474ef9a68831787f3b07546abebc

Contents

---

bscCI   *Blyth-Still-Casella confidence interval*

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   *Clopper-Pearson confidence interval*

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	*Blyth-Still-Casella Confidence Interval*

Description

Blyth-Still-Casella Confidence Interval

Details

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

Index