

Package ‘fpow’

May 8, 2026

Version 0.0-3

Date 2025-05-17

Title Computing the Noncentrality Parameter of the Noncentral F Distribution

Author Ali Baharev [aut, cre]

Maintainer Ali Baharev <ali.baharev@gmail.com>

Description Returns the noncentrality parameter of the noncentral F distribution if probability of type I and type II error, degrees of freedom of the numerator and the denominator are given. It may be useful for computing minimal detectable differences for general ANOVA models. This program is documented in the paper of A. Baharev, S. Kemeny, On the computation of the noncentral F and noncentral beta distribution; Statistics and Computing, 2008, 18 (3), 333-340.

License CC0

URL <https://doi.org/10.1007/s11222-008-9061-3>,
<https://baharev.info/publications/ncbeta.pdf>

Depends R (>= 4.5.0)

NeedsCompilation yes

Repository CRAN

Date/Publication 2025-05-17 22:10:02 UTC

Contents

ncparamF	2
Index	3

ncparamF	<i>Computing the noncentrality parameter of the noncentral F distribution</i>
----------	---

Description

Returns the noncentrality parameter of the noncentral F distribution if probability of Type I and Type II error, degrees of freedom of the numerator and the denominator in the F test statistics are given.

Usage

```
ncparamF(type1, type2, nu1, nu2)
```

Arguments

type1	Probability of Type I error
type2	Probability of Type II error
nu1	Degrees of freedom of the numerator in the F test statistics
nu2	Degrees of freedom of the denominator in the F test statistics

Value

The noncentrality parameter is returned.

Examples

```
result <- ncparamF(0.05, 0.10, 2, 10)
stopifnot(all.equal(result, 17.43876, tolerance = 1e-5))
```

Index

- * **ANOVA**

 - ncparamF, 2

- * **minimal detectable differences**

 - ncparamF, 2

- * **power of F-Test**

 - ncparamF, 2

ncparamF, 2