

# Package: UniExactFunTest (via r-universe)

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**Type** Package

**Title** Uniform Exact Functional Tests for Contingency Tables

**Version** 1.0.0

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**Author** Yiyi Li [aut, cre] (<<https://orcid.org/0000-0001-8859-3987>>),  
Joe Song [aut] (<<https://orcid.org/0000-0002-6883-6547>>)

**Maintainer** Yiyi Li <gtarex@nmsu.edu>

**Description** Testing whether two discrete variables have a functional relationship under null distributions where the two variables are statistically independent with fixed marginal counts. The fast enumeration algorithm was based on (Nguyen et al. 2020) <[doi:10.24963/ijcai.2020/372](https://doi.org/10.24963/ijcai.2020/372)>.

**License** LGPL (>= 3)

**Encoding** UTF-8

**Imports** Rcpp (>= 1.0.5)

**LinkingTo** Rcpp

**Depends** R (>= 3.5.0), stats

**Suggests** knitr, rmarkdown, testthat (>= 3.0.0)

**VignetteBuilder** knitr

**Config/testthat/edition** 3

**RoxygenNote** 7.2.3

**NeedsCompilation** yes

**Repository** CRAN

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UEFT

*Uniform Exact Functional Test on Two Discrete Random Variables*

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**Description**

Perform the uniform exact functional test on a contingency table to determine if the column variable is a function of the row variable.

**Usage**

```
UEFT(input, correct, log.p)
```

**Arguments**

input	A matrix of nonnegative integers representing a contingency table. Column is the casual and row is the effect.
correct	Logical; if implement the continuity correction. The description is at details. The default is TRUE.
log.p	Logical; if TRUE, the p-value is given as log(p). The default is FALSE. The default is FALSE.

**Details**

The uniform idea was implemented using uniform marginal distribution of a square table as null hypothesis. The continuity correction algorithm

**Value**

The exact p-value of the test.

**Author(s)**

Yiyi Li, Joe Song

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