Package 'ppks'

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Type Package

Title Permutation Based Paired Kolmogorov-Smirnov Test

Version 1.0

Date 2025-09-21

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Depends R (>= 4.0)

Imports Rfast, stats

Suggests Rfast2

Description Permutation based Kolmogorov-Smirnov test for paired samples. The test was proposed by Wang W.S., Amsler C. and Schmidt, P. (2025) <doi:10.1007/s00181-025-02779-0>.

License GPL (>= 2)

NeedsCompilation no

Repository CRAN

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ppks-package *Permutation Based Paired Kolmogorov-Smirnov Test*

Description

Permutation Based Paired Kolmogorov-Smirnov Test

Details

Package:	ppks
Type:	Package
Version:	1.0
Date:	2025-09-21
License:	GPL-2

Maintainers

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Author(s)

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References

Wang W.S., Amsler C. and Schmidt, P. (2025). A randomly swapped bootstrap for paired data: testing equality of distribution for correlated samples. Empirical Economics, To appear. https://link.springer.com/article/10.1007/
025-02779-0

colppks *Permutation Based Paired Kolmogorov-Smirnov Test*

Description

Permutation Based Paired Kolmogorov-Smirnov Test

Usage

```
colppks(x, y, R = 999)
```

Arguments

x	A numerical matrix with data.
y	A numerical matrix with data.
R	The number of permutations to perform.

Details

The permutation based Kolmogorov-Smirnov test for paired samples (Wang W.S., Amsler C. and Schmidt, P., 2025) is performed. The x and y matrices contain the paired observations. The i-th column of x is paired with the i-th column of y.

Value

A vector with permutation based p-values. Each p-value corresponds to a column in the matrices.

Author(s)

Michail Tsagris.

R implementation and documentation: Michail Tsagris <mtsagris@uoc.gr>.

References

Wang W.S., Amsler C. and Schmidt, P. (2025). A randomly swapped bootstrap for paired data: testing equality of distribution for correlated samples. Empirical Economics, To appear. https://link.springer.com/article/10.1007/
025-02779-0

Examples

```
x <- matrix( rnorm(30 * 10), ncol = 10 )
y <- x + rnorm(30 * 10)
colppks(x, y)
```

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ppks *Permutation Based Paired Kolmogorov-Smirnov Test*

Description

Permutation Based Paired Kolmogorov-Smirnov Test

Usage

```
ppks(x, y, R = 999)
```

Arguments

x	A numerical vector with data.
y	A numerical vector with data.
R	The number of permutations to perform.

Details

The permutation based Kolmogorov-Smirnov test for paired samples (Wang W.S., Amsler C. and Schmidt, P., 2025) is performed. The x and y vectors contain the paired observations.

Value

The permutation based p-value.

Author(s)

Michail Tsagris.

R implementation and documentation: Michail Tsagris <mtsagris@uoc.gr>.

References

Wang W.S., Amsler C. and Schmidt, P. (2025). A randomly swapped bootstrap for paired data: testing equality of distribution for correlated samples. Empirical Economics, To appear. https://link.springer.com/article/10.1007/
025-02779-0

Examples

```
x <- rnorm(30)
y <- x + rnorm(30)
ppks(x, y)
```

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