

Package ‘kuiper.2samp’

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Title Two-Sample Kuiper Test

Version 1.0

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Description This function performs the two-sample Kuiper test to assess the anomaly of continuous, one-dimensional probability distributions. References used for this method are (1). Kuiper, N. H. (1960). <[DOI:10.1016/S1385-7258\(60\)50006-0](https://doi.org/10.1016/S1385-7258(60)50006-0)> and (2). Paltani, S. (2004). <[DOI:10.1051/0004-6361:20034220](https://doi.org/10.1051/0004-6361:20034220)>.

Depends R (>= 3.3.1)

License AGPL-3

LazyData true

NeedsCompilation no

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Description

2-sample Kuiper Test Function: performs Kuiper Test for two sets samples of observations

Usage

```
kuiper.2samp(x, y)
```

Arguments

x an array of sample observations
y the other array of sample observations

Value

Kuiper test statistic and p-value

Note

The computation of the p-value takes references from Paltani(2004) which states that the functions (in the set of four formulas) never underestimates the false positive probability however it can be a bit high when the sample size in the range of 40 to 50 a factor of 1.5 is quoted at the 1e-7 level

References

Kuiper, N. H. (1960). "Tests concerning random points on a circle". Proceedings of the Koninklijke Nederlandse Akademie van Wetenschappen, Series A. 63: 38-47. Paltani, S., "Searching for periods in X-ray observations using Kuiper's test. Application to the ROSAT PSPC archive", Astronomy and Astrophysics, v.240, p.789-790, 2004.

Examples

```
kuiper.2samp(rnorm(1e3),rnorm(1e3))
```

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