
staticrab

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Staticrab is a python package aimed at fast(ish) calculation of correlation coefficients in python.

CORRELATION.PY

The module for fast correlation computation.

`staticrab.correlation.chatterjee(x: numpy.ndarray, y: numpy.ndarray) → float`

Computes the Chatterjee's correlation measure.

The function computes the Chatterjee's correlation measure. The algorithm is described at arXiv:1909.10140. It computes a deterministic version of the coefficients where the ties are not broken at random. To have the random breakage, randomly shuffle the input arrays before using this function.

Parameters

- **x** – array of float64
- **y** – array of float64, cannot be constant

Returns Chatterjee's correlation coefficient for x, y

Return type float

Examples

```
>>> a = np.array(range(5), dtype=np.float64)
>>> chatterjee(a, a)
0.5
>>> a = np.array(range(2000), dtype=np.float64)
>>> chatterjee(a, a)
0.9985007496251874
```

Notes

There appeared another python implementation at <https://github.com/czbiohub/xicor> but the computed values are different.

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