

NAME

rankcorr – calculate linear and rank correlations

SYNOPSIS

rankcorr [-l [-c | -z]] [-r [-d]] [-t] [-p] [-2] [-M *mask_file* [*mask_value*]]

DESCRIPTION

rankcorr calculates Pearson's linear correlation coefficient, Spearman's rank correlation coefficient, and Kendall's tau. Default action is calculation of Spearman's rank correlation. Significance levels for statistical tests can be output by selecting **-p**. Output is double format suited for input to *maf* etc.

rankcorr handles the IMM defined "Irregular" HIPS format, see *a2h*. *rankcorr* does not (yet) handle the IMM defined band-interleaved-by-line HIPS format, see *bil*.

OPTIONS

- l** calculate Pearson's linear correlation
- c** calculate covariance rather than (linear) correlation
- z** calculate Fisher's *z*-transformation rather than (linear) correlation
- r** do *not* calculate Spearman's rank correlation
- d** calculate sum squared difference of ranks, D^{**} , rather than rank correlation
- t** calculate Kendall's tau (which takes a very long time for many observations)
- p** calculate significance level(s) for statistical tests rather than correlations etc
- 2** keep only two frames in RAM at a time (as opposed to all frames simultaneously)
- M** *mask_file* [*mask_value*]
data are included only where *mask_file* (a byte HIPS image) has the value *mask_value* (defaults to all values greater than 0).

SEE ALSO

maf(1), roprc(1), a2h(1), bil(1)

REFERENCES

W.H. Press, S.A. Teukolsky, W.T. Vetterling and B.P. Flannery (1997). *Numerical Recipes in C: The Art of Scientific Computing*. Second Edition. Cambridge University Press.

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