
Subject: 2D Pearson correlation coefficient
Posted by [limiq](#) on Thu, 30 Jan 2014 14:43:54 GMT
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Dear all,

I would like to ask if someone know a code to calculate a 2D Pearson correlation as:

$$r^2 = \frac{(\sum w_i (M_i - M)(O_i - O))^2}{(\sum w_i (M_i - M)^2)(\sum w_i (O_i - O)^2)}$$

Sum runs from $i=1$ to N . N is the total number of grid cells.

M_i and O_i are the values in the grid cell i and w_i is a normalized weight (area) of grid cell i . $\sum w_i = 1$ (Sum from $i=1$ to N).

IDL has `C_Correlate` and `R_correlate` but none of them include the w_i factor.

I will appreciate any assistance.

Lim
