
Subject: Re: 2D Pearson correlation coefficient
Posted by [limiqt](#) on Fri, 31 Jan 2014 09:14:45 GMT
[View Forum Message](#) <> [Reply to Message](#)

I forgot to mention that M and O are global data of temperature regridded at the same resolution.
Lim

On Thursday, January 30, 2014 9:43:54 AM UTC-5, Lim wrote:

> Dear all,
>
> I would like to ask if someone know a code to calculate a 2D Pearson correlation as:
>
>
>
> $r^2 = (\text{Sum } w_i * (M_i - M) * (O_i - O))^2 / ((\text{Sum } w_i * (M_i - M)^2) * (\text{Sum } w_i * (O_i - O)^2))$
>
>
>
> 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 . $\text{Sum } w_i = 1$ (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
