
Subject: correlation between images

Posted by [Wout De Nolf](#) on Thu, 02 Apr 2009 12:33:24 GMT

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Hi all,

I have two images and I want to check (statistically) whether they are "the same" and show it to others so they will believe me :-).

The first thing I thought of was using the Pearson correlation coefficient:

```
R=correlate(img1,img2)
```

However, R close to 1 doesn't necessarily means they are "the same" or in other words, img1 vs. img2 is linear.

(Some examples of R=0.8:

<http://upload.wikimedia.org/wikipedia/commons/b/b6/Anscombe.svg>)

I can off course show the scatter plot

```
plot,img1,img2
```

```
with LADFIT(img1,img2) to draw a line through it and  
correlate(img1,img2) to add a correlation coefficient.
```

I'm still not satisfied though. Does anyone use another statistical method to compare images? (I tried IDL's `c_correlate` but I can't figure out what the result means...)

Thanks

Wox
