
Subject: Principal components analysis

Posted by [Mark McGillion](#) on Mon, 01 Mar 1999 08:00:00 GMT

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Dear all,

I am computing the principal components and derived variables of a set of power spectral data (using IDL v5.1). The power spectral data is a matrix of high dimensionality [500,400], the power spectra has 500 points, and there are 400 examples of this spectra. The 500 derived variables calculated from the principle components describe the data completely (100% of the variance). In my case, I find that the first two derived variables describe over 95% of the variance, therefore I can easily visualise my original data in 2-dimensions. Great!

What I need to know is.....what contribution is made to these derived variables by each of the original 500 variables. Is it possible to determine which of the original 500 variables provided the greatest contribution to each derived variable?

I would appreciate any help you can give (even if it is just a reference book!).

Cheers, Mark
