
Subject: Re: tired/triql and EOF/PCA

Posted by [k-bowman](#) on Fri, 25 Jan 2002 18:06:55 GMT

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In article <3c512bf9@news.nwl.ac.uk>, wmc@bas.ac.uk wrote:

> 'm trying to to EOF (=PCA) analysis, which involvees finding eigenvectors
> of a symmetric matrix. I use tired/triql (should I?). This works fine for
> small matrices but on large ones (well not very large... 500x500, perhaps)
> falls over with "too many iterations". But... there is no "how many
> iterations" parameter to set. Ideas?

I think you will be forced to use external libraries. LAPACK includes a number of robust eigenfunction routines and is free. I used LAPACK recently, and it was easier to write a short Fortran code than to link the LAPACK routines into IDL.

See, for example,

<http://www.netlib.no/netlib/lapack/>

or

<http://www.cs.colorado.edu/~lapack/>.

Ken
