
Subject: Re: Does IDL have a EOF(empirical orthogonal function)?

Posted by [Vince Hradil](#) on Wed, 04 Apr 2007 15:14:57 GMT

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On Apr 4, 7:29 am, "uniqueman" <zhuang...@gmail.com> wrote:

- > I will use it to analyze my lightning data, who can I tell me how to
- > implement it by IDL?
- > Thanks !

IDL has PCA and SVD - can you use these?

Subject: Re: Does IDL have a EOF(empirical orthogonal function)?

Posted by [Kenneth Bowman](#) on Wed, 04 Apr 2007 16:17:33 GMT

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In article <1175689745.510120.220440@y66g2000hsf.googlegroups.com>, "uniqueman" <zhuangbao@gmail.com> wrote:

- > I will use it to analyze my lightning data, who can I tell me how to
- > implement it by IDL?

EOF's are the eigenfunctions of a covariance matrix, so you can compute the covariance matrix and then use LA_EIGENQL to find the desired eigenvectors and eigenvalues.

There are also LA_EIGENPROBLEM and LA_EIGENVEC functions with different options.

I like LA_EIGENQL because it allows me to get only the first few eigenvalues and eigenvectors of a large array quickly.

Ken Bowman
