Subject: Re: Matrix calculus
Posted by Kenneth P. Bowman on Wed, 08 Oct 2008 13:44:47 GMT
View Forum Message <> Reply to Message

In article
<2fa450be-1a5e-4efd-a703-b6bb2e879383@k30g2000hse.googlegroups.com>,
 silviadncl@gmail.com wrote:

> How can i compute eigenvalues and eigenvectors of a complex
> matrix(hermitian)?
> Thank you

LA_EIGENQL

Ken Bowman

Subject: Re: Matrix calculus
Posted by Craig Markwardt on Wed, 08 Oct 2008 18:44:48 GMT
View Forum Message <> Reply to Message

silviadncl@gmail.com writes:

> How can i compute eigenvalues and eigenvectors of a complex
> matrix(hermitian)?

Greetings, did you try LA_EIGENQL?

Craig

--
 ---------- ----------
Craig B. Markwardt, Ph.D. EMAIL: cbmarkwardt+usenet@gmail.com
 ---------- ----------

Subject: Re: Matrix calculus
Posted by jameskuyper on Thu, 09 Oct 2008 17:51:16 GMT
View Forum Message <> Reply to Message

Kenneth P. Bowman wrote:
> In article
> <2fa450be-1a5e-4efd-a703-b6bb2e879383@k30g2000hse.googlegroups.com>,
> silviadncl@gmail.com wrote:
>
>> How can i compute eigenvalues and eigenvectors of a complex
>> matrix(hermitian)?

>> Thank you
>
> LA_EIGENQL

The documentation for LA_EIGENQL says that it is for "real nonsymmetric or complex non-Hermitian array A". I don't think that means that it won't work on real symmetric arrays, or complex Hermitian arrays, but it does mean that it wasn't optimized for such arrays.

Take a look at <http://idlastro.gsfc.nasa.gov/idl_html_help/IMSL_EIG.html>, and in particular, the /SYMMETRIC option.

Subject: Re: Matrix calculus
Posted by Kenneth P. Bowman on Thu, 09 Oct 2008 18:14:24 GMT
View Forum Message <> Reply to Message

In article <e842ca8d-f6ce-48c3-af02-772487cefb8f@i18g2000prf.googlegroups.com>, jameskuyper@verizon.net wrote:

> Kenneth P. Bowman wrote:
>> In article
>> <2fa450be-1a5e-4efd-a703-b6bb2e879383@k30g2000hse.googlegroups.com>,
>> silviadncl@gmail.com wrote:
>>
>>> How can i compute eigenvalues and eigenvectors of a complex
>>> matrix(hermitian)?
>>> Thank you
>>
>> LA_EIGENQL
>
> The documentation for LA_EIGENQL says that it is for "real
> nonsymmetric or complex non-Hermitian array A". I don't think that
> means that it won't work on real symmetric arrays, or complex
> Hermitian arrays, but it does mean that it wasn't optimized for such
> arrays.
>
> Take a look at <http://idlastro.gsfc.nasa.gov/idl_html_help/
> IMSL_EIG.html>, and in particular, the /SYMMETRIC option.

My IDL Help (6.4.1) says LA_EIGENQL "computes selected eigenvalues and eigenvectors of an n-by-n real symmetric or complex Hermitian array A".

LA_EIGENPROBLEM and LA_EIGENVEC are for general non-symmetric matrices.

Ken
