
Subject: Re: generalized eigenvectors

Posted by [Randall Skelton](#) on Tue, 16 Apr 2002 15:43:41 GMT

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This is a good point. Instead of $Ax = kx$ you have $Ax = kBx$ or $(B^{-1}A)x = kx$ for the "generalized" form. I certainly hope B is nonsingular...

Cheers,
Randall

On 16 Apr 2002, Mirko Vukovic wrote:

> Randall,
>
> the generalized eigenvalue problem involves two matrices, while the
> routines you suggest will solve the ``ordinary" eigenvalue problem
> that deals with one matrix only. Take a look at the original post
> (included below), and you will see what I mean. (BTW, that is about
> the extent of my expertise on the subject).
>
> Mirko
> ... stuff deleted
>>> Description of the problem:
>>> I need to find the eigenvalues and eigenvectors of
>>> $Ax = kBx$
>>> where both A and B are $n \times n$ matrices and k is a scalar.
>
