
Subject: Re: matrix log and exp
Posted by [G Karas](#) on Thu, 18 Apr 2002 13:19:16 GMT
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"Vince" <hradilv.nospam@yahoo.com> wrote in message
news:3cbde89e.197479700@news...
> On Wed, 17 Apr 2002 15:32:42 -0400, Paul Van Delst
> <paul.vandelst@noaa.gov> wrote:
>
>> G Karas wrote:
>>>
>>> Hi group,
>>> one quickie and possibly difficult:
>>>
>>> IDL does not have a matrix logarithm logm and matrix
>>> exponent expm function. I was thinking of calling lapack
>>> routines which do it, but have no experience with lapack
>>> or FORTRAN. Anyone with any tips on this one?
>>
>> Yes. Use ALOG() and EXP().
>>
>> paulv
>>
>> --
>> Paul van Delst Religious and cultural
>> CIMSS @ NOAA/NCEP purity is a fundamentalist
>> Ph: (301)763-8000 x7274 fantasy
>> Fax:(301)763-8545 V.S.Naipaul
>
> I think what the original post-er is looking for is:
>
> $\exp(A) = \text{SUM}\{ (1/n!) * A^n \}$ from 0 to infinity
>
> The only (other) advice I can give is to truncate the sum at some
> "reasonable" value (10?, 100?). 'couse you still have to deal with
> the A^n part %^{

Yes, exp(A) with the factorial is quite straightforward, a value of 60 or so
will do the trick, but to go back by using
the logarithm is a lot more complicated. Thanks for all
the advice though :)