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Subject: Re: MATRIX LOGARITHM (and EXPONENTIAL)

Posted by [pgrigis](#) on Thu, 27 Jan 2011 22:40:35 GMT

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On Jan 27, 5:37 pm, Paulo Penteado <pp.pente...@gmail.com> wrote:

> On Jan 27, 7:41 pm, teddyallen <teddyal...@yahoo.com> wrote:

>

>> Just a quick question. Does IDL have a similar command to the popular

>> MATLAB logm and expm so that I can take the matrix logarithm (and

>> exponential)? I understand that ALOG and EXP will not function in this

>> sense.

>

> Can you explain what matrix log and exp are?

If A is a matrix, and # matrix multiplication

$\exp(A) = \sum \text{over } k \text{ of } A^k/k!$

where  $A^2 = A\#A$ ,  $A^3 = A\#A\#A$  etc.

Ciao,  
Paolo

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