Subject: Re: MATRIX LOGARITHM (and EXPONENTIAL)
Posted by James[2] on Fri, 28 Jan 2011 00:10:35 GMT

On Jan 27, 1:41 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.
> Thank you,
> teddy

If the matrix A is diagonalizable, then:

eigenvals = LA_EIGENPROBLEM(A, EIGENVECTORS=evecs)
expA = evecs # diag_matrix(exp(eigenvals)) # invert(evecs)
logA = evecs # diag_matrix(alog(eigenvals)) # invert(evecs)