Subject: Re: the (Moore-Penrose) pseudo-inverse of a matrix - anything like scipy.linalg's pinv2 in IDL?
Posted by Russell Ryan on Wed, 03 Apr 2013 13:52:22 GMT
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On Wednesday, April 3, 2013 1:18:16 AM UTC-4, JP wrote:
> Hello IDLers,
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>
> I am adapting a code from python to IDL and I got stuck with the pinv2 function:
http://docs.scipy.org/doc/scipy/reference/generated/scipy.li nalg.pinv2.html
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>
> It computes the Moore-Penrose pseudo-inverse of a matrix and I couldn't find anything similar in IDL.
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> A search through this group pointed to a post 10 years old where Paul van Delst Lars shared his svd_matrix_invert function (link to post:
https://groups.google.com/d/msg/comp.lang.idl-pvwave/NNzCI4h MUP4/n9UzWjazT3YJ )
>
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>
> Is that an equivalent to the scipy pinv2 i am looking for? And if so, I will appreciate if someone will better algebra skills than me (likely 95% of this community) could suggest how to introduce the rcond keyword available in pinv2.
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> thanks a lot.
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> JP

I just read the Wikipedia article on Moore-Penrose Inverses. Sounds like you can just do an SVD then operate on the Sigma matrix and the resulting A+ matrix. I'm unaware of any existing IDL code to do this. There are two routines to do the SVD included in the standard distro.

-Russell