
Subject: Re: Matrix rank

Posted by [Vince Hradil](#) on Fri, 14 Dec 2007 16:28:11 GMT

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On Dec 14, 9:42 am, Wox <nom...@hotmail.com> wrote:

> On Fri, 14 Dec 2007 06:35:11 -0800 (PST), Vince Hradil

>

> <hrad...@yahoo.com> wrote:

>> IDL can do SVD, can you get the rank from that? Look up SVDC in the

>> docs.

>

> I could do this, but maybe there's a better way?

>

> ; A: integers

> ; B: floats

> A = [[0,0,1], \$

> [0,1,0], \$

> [0,0,0]]

> B = [0.25,0.5,1]

>

> ; Decompose A

> SVDC, A, W, U, V

> ; Solve A.X=B

> X=SVSOL(U, W, V, B)

>

> ; Check

> B2=A##X

> ind=where(total(abs(A),1,/pres) ne 0)

>

> if array_equal(B[ind],B2[ind]) then print,X

Well, w contains the singular values, the number of these that are non-zero will be the rank:

idx = where(w ne 0, rank)

print, rank

2

Does anyone else read the Help??????
