
Subject: Re: Matrix rank

Posted by [Wox](#) on Fri, 14 Dec 2007 15:42:36 GMT

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

<hradilv@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
```
