Subject: SVDC procedure
Posted by g.nacarts on Mon, 14 Apr 2014 09:54:00 GMT
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Does SVDC procedure works for under determined systems? I tried to solve my system but I ended up with negative value and it supposed to be all positive.

Here are my matrices:
A= [[21, 10, 6], [1,1,1]]

SVDC

b= [[570], [8070]]

Subject: Re: SVDC procedure
Posted by Craig Markwardt on Tue, 15 Apr 2014 18:47:55 GMT
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On Monday, April 14, 2014 5:54:00 AM UTC-4, g.na...@gmail.com wrote:
> Does SVDC procedure works for under determined systems? I tried to solve my system but I ended up with negative value and it supposed to be all positive.
>
> Here are my matrices:
>
> A= [[21, 10, 6], [1,1,1]]
>
> b= [[570], [8070]]

Which value was negative? When I run
  SVDC, A, w, u, v
then I get,
  W =   24.0702   0.790450   -0.00000

None of those values is "negative." (-0 is still equal to zero) For an under-determined system one should expect some zero singular values.

Craig

Subject: Re: SVDC procedure
Posted by g.nacarts on Wed, 16 Apr 2014 11:07:13 GMT
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On Monday, 14 April 2014 10:54:00 UTC+1, g.na...@gmail.com wrote:
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Subject: Re: SVDC procedure
Posted by g.nacarts on Wed, 16 Apr 2014 11:09:00 GMT
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I don't mean the singular values. My final answer include a negative value.

Subject: Re: SVDC procedure
Posted by g.nacarts on Wed, 16 Apr 2014 11:10:54 GMT
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I don't mean the singular values. My final answer include a negative number.

Subject: Re: SVDC procedure
Posted by Craig Markwardt on Wed, 16 Apr 2014 18:51:52 GMT
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On Wednesday, April 16, 2014 7:09:00 AM UTC-4, g.na...@gmail.com wrote:
> I don't mean the singular values. My final answer include a negative value.

What final answer? I verified that in your printed example, u ## diag(w) ## transpose(v) gives back the original A matrix. The matrices U and V are orthogonal as required. I don't see what else is required.

Craig

Subject: Re: SVDC procedure
Posted by   on Wed, 16 Apr 2014 21:11:37 GMT

Den onsdagen den 16:e april 2014 kl. 13:09:00 UTC+2 skrev g.na...@gmail.com:
> I don't mean the singular values. My final answer include a negative value.

You do know that an under determined system has an infinite number of solutions? If you don't like the one you've got, pick another...