
Subject: Re: IDL inverse matrix problem??

Posted by [amin farhang](#) on Fri, 23 Jan 2015 19:56:32 GMT

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Hi,

Let me try an example in IDL and matlab for example:

In IDL:

```
IDL> Am =[-6.8599934d+16,-8.3590379d+16,-1.8742199d+17,1.5697952d+17,
1.1607144d+17],$
IDL> [-1.2228319d+17,-1.4900449d+17,-3.3409009d+17,2.7982470d+17, 2.0690379d+17],$
IDL> [-1.4972730d+17,-1.8244569d+17,-4.0907020d+17,3.4262599d+17, 2.5333938d+17],$
IDL> [-1.0612015d+17,-1.2930950d+17,-2.8993102d+17,2.4283828d+17, 1.7955584d+17],$
IDL> [-1.1696076d+17,-1.4251900d+17,-3.1954867d+17,2.6764521d+17, 1.9789821d+17]]
IDL> Bm = la_invert(Am)
IDL> Cm = Am ## Bm
IDL> print,Cm
    0.99999999 -3.7252903e-09 -1.2107193e-08 -7.4505806e-08 8.9406967e-08
-1.4901161e-08 1.00000000 -1.2107193e-08 -1.0430813e-07 1.1920929e-07
-1.4901161e-08 -7.4505806e-09 0.99999997 -1.4901161e-07 8.9406967e-08
-1.4901161e-08 -7.4505806e-09 -1.4901161e-08 0.99999990 8.9406967e-08
-1.4901161e-08 -2.6077032e-08 -2.0489097e-08 -1.4901161e-07 1.00000002
```

As you see the AA-1 is not a complete identity matrix

In matlab:

```
Am = [ [-6.8599934e+16 , -8.3590379e+16 , -1.8742199e+17 , 1.5697952e+17 ,
1.1607144e+17];...
[-1.2228319e+17 , -1.4900449e+17 , -3.3409009e+17 , 2.7982470e+17 , 2.0690379e+17];...
[-1.4972730e+17 , -1.8244569e+17 , -4.0907020e+17 , 3.4262599e+17 , 2.5333938e+17];...
[-1.0612015e+17 , -1.2930950e+17 , -2.8993102e+17 , 2.4283828e+17 , 1.7955584e+17];...
[-1.1696076e+17 , -1.4251900e+17 , -3.1954867e+17 , 2.6764521e+17 , 1.9789821e+17]];
```

```
Bm = inv(Am);
Cm = Am * Bm
```

```
1.0000 -0.0000 -0.0000 -0.0000 0.0000
0 1.0000 -0.0000 0.0000 -0.0000
-0.0000 -0.0000 1.0000 0 0
-0.0000 0.0000 -0.0000 1.0000 0.0000
-0.0000 0 -0.0000 -0.0000 1.0000
```

As you see the result is a identity matrix

Best,
