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>> demo_Polynomial_Dictionary_Learning
Starting to train the dictionary
solving the quadratic problem with YALMIP...
SeDuMi 1.32 by AdvOL, 2005-2008 and Jos F. Sturm, 1998-2003.
Alg = 2: xz-corrector, theta = 0.250, beta = 0.500
Put 5 free variables in a quadratic cone
eqs m = 85, order n = 805, dim = 893, blocks = 3
nnz(A) = 20776 + 0, nnz(ADA) = 7225, nnz(L) = 3655
 it :     b*y       gap    delta  rate   t/tP*  t/tD*   feas cg cg  prec
  0 :            6.01E+01 0.000
  1 :  -4.43E+01 4.89E+01 0.000 0.8135 0.9000 0.9000  14.18  1  1  1.2E+00
  2 :  -5.42E+01 3.12E+01 0.000 0.6385 0.9000 0.9000  15.96  1  1  2.1E-01
  3 :  -5.42E+01 7.79E+00 0.000 0.2494 0.9000 0.9000   2.95  1  1  2.1E-02
  4 :  -5.26E+01 3.83E+00 0.000 0.4923 0.9000 0.9000   1.41  1  1  8.9E-03
  5 :  -5.23E+01 2.22E+00 0.000 0.5802 0.9000 0.9000   1.31  1  1  4.7E-03
  6 :  -5.19E+01 1.24E+00 0.000 0.5583 0.9000 0.9000   1.18  1  1  2.5E-03
  7 :  -5.18E+01 7.28E-01 0.000 0.5866 0.9000 0.9000   1.17  1  1  1.4E-03
  8 :  -5.17E+01 3.85E-01 0.000 0.5281 0.9000 0.9000   1.10  1  1  7.3E-04
  9 :  -5.16E+01 1.92E-01 0.000 0.4993 0.9000 0.9000   1.11  1  1  3.5E-04
 10 :  -5.16E+01 8.65E-02 0.000 0.4504 0.9000 0.9000   1.06  2  2  1.5E-04
 11 :  -5.16E+01 3.66E-02 0.000 0.4233 0.9000 0.9000   1.06  1  2  6.4E-05
 12 :  -5.16E+01 1.43E-02 0.000 0.3910 0.9000 0.9000   1.03  2  2  2.5E-05
 13 :  -5.16E+01 5.55E-03 0.000 0.3880 0.9000 0.9000   1.02  2  2  9.5E-06
 14 :  -5.16E+01 2.15E-03 0.000 0.3878 0.9000 0.9000   0.99  2  2  3.7E-06
 15 :  -5.16E+01 1.04E-03 0.000 0.4820 0.9000 0.9000   0.93  2  2  1.9E-06
 16 :  -5.16E+01 5.94E-04 0.000 0.5722 0.9000 0.9000   0.85  3  3  1.2E-06
 17 :  -5.16E+01 3.22E-04 0.000 0.5419 0.9000 0.9000   0.69  3  3  7.5E-07
 18 :  -5.16E+01 2.35E-04 0.000 0.7305 0.9000 0.9000   0.61  4  4  6.1E-07
 19 :  -5.16E+01 1.67E-04 0.000 0.7086 0.9000 0.9000   0.58  5  5  4.8E-07
 20 :  -5.16E+01 1.06E-04 0.000 0.6371 0.9000 0.9000   0.59 16 16  3.5E-07
 21 :  -5.16E+01 6.18E-05 0.000 0.5822 0.9000 0.9000   0.61 34 34  2.4E-07
 22 :  -5.16E+01 4.18E-05 0.000 0.6756 0.9000 0.9000   0.48 50 48  1.9E-07
Run into numerical problems.

iter seconds digits       c*x               b*y
 22      1.1   5.6 -5.1561548998e+01 -5.1561667455e+01
|Ax-b| =   8.1e-07, [Ay-c]_+ =   9.3E-07, |x|=  8.6e+01, |y|=  5.2e+01

Detailed timing (sec)
   Pre          IPM          Post
6.200E-02    3.120E-01    3.100E-02
Max-norms: ||b||=1.671970e+01, ||c|| = 5.256842e+01,
Cholesky |add|=0, |skip| = 17, ||L.L|| = 370696.

ans =

   51.5617

The coefficient matrix is not full row rank, numerical problems may occur.
SeDuMi 1.32 by AdvOL, 2005-2008 and Jos F. Sturm, 1998-2003.
Alg = 2: xz-corrector, theta = 0.250, beta = 0.500
Put 5 free variables in a quadratic cone
eqs m = 85, order n = 805, dim = 893, blocks = 3
nnz(A) = 20776 + 0, nnz(ADA) = 7225, nnz(L) = 3655
 it :     b*y       gap    delta  rate   t/tP*  t/tD*   feas cg cg  prec
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  0 :            3.79E+05 0.000
  1 :  -4.58E+01 3.01E+05 0.000 0.7958 0.9000 0.9000  13.90  1  1  1.1E+00
  2 :  -5.11E+01 1.17E+05 0.000 0.3869 0.9000 0.9000  13.15  1  1  9.2E-02
  3 :  -4.83E+01 4.52E+04 0.000 0.3878 0.9000 0.9000   1.54  2  2  4.4E-02
  4 :  -4.61E+01 2.95E+04 0.000 0.6533 0.9000 0.9000   1.21  2  1  3.6E-02
  5 :  -4.63E+01 1.33E+04 0.000 0.4493 0.9000 0.9000   1.17  2  2  2.7E-02
  6 :  -4.71E+01 8.94E+03 0.000 0.6732 0.9000 0.9000   1.15  2  2  2.4E-02
  7 :  -4.95E+01 6.21E+03 0.000 0.6955 0.9000 0.9000   1.20  2  2  2.2E-02
  8 :  -5.25E+01 4.09E+03 0.000 0.6583 0.9000 0.9000   1.24  2  2  2.0E-02
  9 :  -5.57E+01 2.80E+03 0.053 0.6851 0.9000 0.9000   1.28  2  2  1.9E-02
 10 :  -5.75E+01 2.03E+03 0.000 0.7241 0.9000 0.9000   1.26  3  3  1.8E-02
 11 :  -5.76E+01 1.39E+03 0.000 0.6840 0.9000 0.9000   1.25  3  2  1.7E-02
 12 :  -5.60E+01 7.16E+02 0.000 0.5155 0.9000 0.9000   1.24  3  3  1.6E-02
 13 :  -4.85E+01 3.30E+02 0.000 0.4604 0.9000 0.9000   1.20  3  3  1.6E-02
 14 :  -4.34E+01 2.12E+02 0.000 0.6447 0.9000 0.9000   1.13  4  4  1.6E-02
 15 :  -3.51E+01 1.48E+02 0.000 0.6962 0.9000 0.9000   1.03  8  7  1.6E-02
 16 :  -3.07E+01 8.95E+01 0.000 0.6051 0.9000 0.9000   1.03  6  5  1.8E-02
 17 :  -2.34E+01 5.36E+01 0.000 0.5988 0.9000 0.9000   1.09 23 20  1.9E-02
 18 :  -2.09E+01 2.77E+01 0.000 0.5175 0.9000 0.9000   1.05 33 32  2.5E-02
 19 :  -1.70E+01 1.58E+01 0.000 0.5681 0.9000 0.9000   1.05 51 51  1.7E-02
 20 :  -1.59E+01 6.87E+00 0.000 0.4358 0.9000 0.9000   1.01 51 51  8.1E-03
Run into numerical problems.

iter seconds digits       c*x               b*y
 20      1.1   0.2 -5.9062364790e+00 -1.5880966533e+01
|Ax-b| =   6.8e-02, [Ay-c]_+ =   1.2E-05, |x|=  4.6e+04, |y|=  9.1e+01
No sensible solution found.

Detailed timing (sec)
   Pre          IPM          Post
0.000E+00    2.650E-01    0.000E+00
Max-norms: ||b||=1.118879e+05, ||c|| = 5.256842e+01,
Cholesky |add|=0, |skip| = 21, ||L.L|| = 167242.

ans =

   15.7732

Iteration   2   Total error is: 0.016133
The coefficient matrix is not full row rank, numerical problems may occur.
SeDuMi 1.32 by AdvOL, 2005-2008 and Jos F. Sturm, 1998-2003.
Alg = 2: xz-corrector, theta = 0.250, beta = 0.500
Put 5 free variables in a quadratic cone
eqs m = 85, order n = 805, dim = 893, blocks = 3
nnz(A) = 20774 + 0, nnz(ADA) = 7225, nnz(L) = 3655
 it :     b*y       gap    delta  rate   t/tP*  t/tD*   feas cg cg  prec
  0 :            5.77E+05 0.000
  1 :  -4.57E+01 4.59E+05 0.000 0.7958 0.9000 0.9000  13.90  1  1  1.1E+00
  2 :  -5.10E+01 1.83E+05 0.000 0.3981 0.9000 0.9000  13.15  2  1  9.5E-02
  3 :  -4.81E+01 7.54E+04 0.000 0.4125 0.9000 0.9000   1.58  2  2  4.7E-02
  4 :  -4.68E+01 4.78E+04 0.000 0.6340 0.9000 0.9000   1.24  2  2  3.7E-02
  5 :  -4.72E+01 2.36E+04 0.000 0.4929 0.9000 0.9000   1.19  2  2  2.8E-02
  6 :  -4.89E+01 1.63E+04 0.000 0.6902 0.9000 0.9000   1.18  2  2  2.5E-02
  7 :  -5.21E+01 1.18E+04 0.000 0.7232 0.9000 0.9000   1.22  2  2  2.3E-02
  8 :  -5.56E+01 7.66E+03 0.000 0.6516 0.9000 0.9000   1.26  2  2  2.0E-02
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  9 :  -5.94E+01 5.06E+03 0.026 0.6601 0.9000 0.9000   1.28  2  2  1.9E-02
 10 :  -6.13E+01 3.39E+03 0.000 0.6707 0.9000 0.9000   1.26  3  2  1.8E-02
 11 :  -6.06E+01 2.30E+03 0.000 0.6767 0.9000 0.9000   1.22  3  3  1.7E-02
 12 :  -5.80E+01 1.22E+03 0.000 0.5329 0.9000 0.9000   1.21  3  3  1.6E-02
 13 :  -5.16E+01 6.39E+02 0.000 0.5224 0.9000 0.9000   1.18  3  3  1.6E-02
 14 :  -4.65E+01 3.89E+02 0.000 0.6093 0.9000 0.9000   1.13  3  3  1.5E-02
 15 :  -4.17E+01 3.06E+02 0.000 0.7865 0.9000 0.9000   1.03  5  4  1.6E-02
 16 :  -3.20E+01 1.84E+02 0.000 0.6016 0.9000 0.9000   1.10 10 12  1.6E-02
 17 :  -2.99E+01 1.11E+02 0.000 0.6021 0.9000 0.9000   1.05 11 11  1.7E-02
 18 :  -2.14E+01 6.25E+01 0.000 0.5631 0.9000 0.9000   1.10 46 44  1.7E-02
 19 :  -1.82E+01 3.05E+01 0.000 0.4876 0.9000 0.9000   1.05 50 48  2.2E-02
Run into numerical problems.

iter seconds digits       c*x               b*y
 19      0.9  -0.3  2.5994852715e+01 -1.8178224391e+01
|Ax-b| =   3.0e-01, [Ay-c]_+ =   3.3E-05, |x|=  4.9e+04, |y|=  1.0e+02
No sensible solution found.

Detailed timing (sec)
   Pre          IPM          Post
0.000E+00    2.180E-01    0.000E+00
Max-norms: ||b||=1.704534e+05, ||c|| = 5.256842e+01,
Cholesky |add|=0, |skip| = 15, ||L.L|| = 18913.4.

ans =

   17.9946

Iteration   3   Total error is: 0.017161
The coefficient matrix is not full row rank, numerical problems may occur.
SeDuMi 1.32 by AdvOL, 2005-2008 and Jos F. Sturm, 1998-2003.
Alg = 2: xz-corrector, theta = 0.250, beta = 0.500
Put 5 free variables in a quadratic cone
eqs m = 85, order n = 805, dim = 893, blocks = 3
nnz(A) = 20773 + 0, nnz(ADA) = 7225, nnz(L) = 3655
 it :     b*y       gap    delta  rate   t/tP*  t/tD*   feas cg cg  prec
  0 :            5.73E+05 0.000
  1 :  -4.53E+01 4.56E+05 0.000 0.7959 0.9000 0.9000  13.90  1  1  1.1E+00
  2 :  -5.01E+01 2.02E+05 0.000 0.4422 0.9000 0.9000  13.16  2  1  1.1E-01
  3 :  -4.63E+01 1.07E+05 0.000 0.5321 0.9000 0.9000   1.73  2  2  6.0E-02
  4 :  -4.63E+01 5.02E+04 0.000 0.4684 0.9000 0.9000   1.39  2  2  3.7E-02
  5 :  -4.67E+01 3.43E+04 0.000 0.6821 0.9000 0.9000   1.25  2  2  3.1E-02
  6 :  -4.85E+01 2.29E+04 0.000 0.6677 0.9000 0.9000   1.25  2  2  2.7E-02
  7 :  -5.08E+01 1.69E+04 0.175 0.7384 0.9000 0.9000   1.26  2  2  2.4E-02
  8 :  -5.42E+01 1.33E+04 0.000 0.7886 0.9000 0.9000   1.26  2  2  2.2E-02
  9 :  -5.72E+01 9.97E+03 0.000 0.7482 0.9000 0.9000   1.26  2  2  2.1E-02
 10 :  -5.81E+01 6.94E+03 0.000 0.6959 0.9000 0.9000   1.25  2  2  1.9E-02
 11 :  -5.98E+01 4.54E+03 0.000 0.6549 0.9000 0.9000   1.21  3  2  1.8E-02
 12 :  -5.86E+01 2.03E+03 0.000 0.4465 0.9000 0.9000   1.20  3  2  1.6E-02
 13 :  -5.07E+01 9.96E+02 0.000 0.4911 0.9000 0.9000   1.16  3  3  1.6E-02
 14 :  -4.34E+01 6.07E+02 0.000 0.6095 0.9000 0.9000   1.14  3  3  1.5E-02
 15 :  -3.79E+01 4.22E+02 0.000 0.6953 0.9000 0.9000   1.05  5  4  1.5E-02
 16 :  -2.96E+01 1.87E+02 0.000 0.4428 0.9000 0.9000   1.09  5  4  1.6E-02
 17 :  -2.68E+01 9.16E+01 0.000 0.4902 0.9000 0.9000   1.07  9 11  1.7E-02
 18 :  -1.95E+01 4.84E+01 0.000 0.5284 0.9000 0.9000   1.09 43 43  1.8E-02
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 19 :  -1.60E+01 2.57E+01 0.000 0.5306 0.9000 0.9000   1.06 51 51  2.3E-02
Run into numerical problems.

iter seconds digits       c*x               b*y
 19      0.9  -0.3  2.1178097249e+01 -1.5969036338e+01
|Ax-b| =   2.5e-01, [Ay-c]_+ =   2.7E-05, |x|=  3.9e+04, |y|=  1.0e+02
No sensible solution found.

Detailed timing (sec)
   Pre          IPM          Post
1.500E-02    2.190E-01    0.000E+00
Max-norms: ||b||=1.692469e+05, ||c|| = 5.256842e+01,
Cholesky |add|=0, |skip| = 15, ||L.L|| = 20943.1.

ans =

   15.8986

Iteration   4   Total error is: 0.0161
The coefficient matrix is not full row rank, numerical problems may occur.
SeDuMi 1.32 by AdvOL, 2005-2008 and Jos F. Sturm, 1998-2003.
Alg = 2: xz-corrector, theta = 0.250, beta = 0.500
Put 5 free variables in a quadratic cone
eqs m = 85, order n = 805, dim = 893, blocks = 3
nnz(A) = 20773 + 0, nnz(ADA) = 7225, nnz(L) = 3655
 it :     b*y       gap    delta  rate   t/tP*  t/tD*   feas cg cg  prec
  0 :            6.29E+05 0.000
  1 :  -4.49E+01 5.01E+05 0.000 0.7959 0.9000 0.9000  13.90  1  1  1.1E+00
  2 :  -4.92E+01 2.47E+05 0.000 0.4923 0.9000 0.9000  13.17  2  1  1.3E-01
  3 :  -4.55E+01 1.55E+05 0.000 0.6301 0.9000 0.9000   1.94  2  2  7.7E-02
  4 :  -4.61E+01 7.28E+04 0.000 0.4684 0.9000 0.9000   1.58  2  2  4.3E-02
  5 :  -4.73E+01 4.87E+04 0.000 0.6692 0.9000 0.9000   1.34  2  2  3.4E-02
  6 :  -5.00E+01 3.14E+04 0.000 0.6443 0.9000 0.9000   1.31  2  2  2.8E-02
  7 :  -5.35E+01 2.13E+04 0.037 0.6773 0.9000 0.9000   1.31  2  2  2.4E-02
  8 :  -5.80E+01 1.49E+04 0.000 0.7027 0.9000 0.9000   1.29  2  2  2.1E-02
  9 :  -6.09E+01 1.05E+04 0.000 0.7005 0.9000 0.9000   1.25  2  2  2.0E-02
 10 :  -6.21E+01 5.80E+03 0.000 0.5545 0.9000 0.9000   1.22  2  2  1.8E-02
 11 :  -6.07E+01 2.86E+03 0.000 0.4933 0.9000 0.9000   1.17  3  2  1.7E-02
 12 :  -5.40E+01 1.64E+03 0.000 0.5717 0.9000 0.9000   1.13  3  3  1.6E-02
 13 :  -4.65E+01 1.03E+03 0.000 0.6323 0.9000 0.9000   1.12  3  3  1.6E-02
 14 :  -4.40E+01 8.48E+02 0.000 0.8196 0.9000 0.9000   1.05  4  3  1.6E-02
 15 :  -3.79E+01 5.49E+02 0.000 0.6469 0.9000 0.9000   1.06  4  4  1.5E-02
 16 :  -3.63E+01 3.53E+02 0.000 0.6435 0.9000 0.9000   1.05  4  4  1.6E-02
 17 :  -2.72E+01 1.22E+02 0.000 0.3458 0.9000 0.9000   1.11  9  9  1.6E-02
 18 :  -2.38E+01 6.16E+01 0.000 0.5047 0.9000 0.9000   1.07 23 30  1.8E-02
 19 :  -1.76E+01 3.56E+01 0.000 0.5780 0.9000 0.9000   1.08 51 51  2.0E-02
 20 :  -1.45E+01 2.06E+01 0.000 0.5783 0.9000 0.9000   1.04 51 51  2.5E-02
Run into numerical problems.

iter seconds digits       c*x               b*y
 20      1.0  -0.3  1.5131507729e+01 -1.4543708146e+01
|Ax-b| =   2.2e-01, [Ay-c]_+ =   2.0E-05, |x|=  3.7e+04, |y|=  9.9e+01
No sensible solution found.

Detailed timing (sec)
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   Pre          IPM          Post
1.501E-02    2.650E-01    0.000E+00
Max-norms: ||b||=1.859429e+05, ||c|| = 5.256842e+01,
Cholesky |add|=0, |skip| = 19, ||L.L|| = 30250.7.

ans =

   14.4776

Iteration   5   Total error is: 0.015352
The coefficient matrix is not full row rank, numerical problems may occur.
SeDuMi 1.32 by AdvOL, 2005-2008 and Jos F. Sturm, 1998-2003.
Alg = 2: xz-corrector, theta = 0.250, beta = 0.500
Put 5 free variables in a quadratic cone
eqs m = 85, order n = 805, dim = 893, blocks = 3
nnz(A) = 20773 + 0, nnz(ADA) = 7225, nnz(L) = 3655
 it :     b*y       gap    delta  rate   t/tP*  t/tD*   feas cg cg  prec
  0 :            6.68E+05 0.000
  1 :  -4.43E+01 5.32E+05 0.000 0.7962 0.9000 0.9000  13.90  2  1  1.1E+00
  2 :  -4.82E+01 3.01E+05 0.000 0.5665 0.9000 0.9000  13.22  2  1  1.6E-01
  3 :  -4.61E+01 2.11E+05 0.000 0.6991 0.9000 0.9000   2.32  2  2  1.0E-01
  4 :  -4.77E+01 1.01E+05 0.000 0.4811 0.9000 0.9000   1.85  2  2  5.1E-02
  5 :  -4.98E+01 6.51E+04 0.000 0.6426 0.9000 0.9000   1.46  2  2  3.7E-02
  6 :  -5.29E+01 3.77E+04 0.000 0.5790 0.9000 0.9000   1.39  2  2  2.8E-02
  7 :  -5.67E+01 2.21E+04 0.000 0.5854 0.9000 0.9000   1.34  2  2  2.3E-02
  8 :  -6.07E+01 1.28E+04 0.000 0.5781 0.9000 0.9000   1.27  2  2  2.0E-02
  9 :  -6.17E+01 5.88E+03 0.000 0.4608 0.9000 0.9000   1.19  3  2  1.7E-02
 10 :  -5.97E+01 2.87E+03 0.000 0.4886 0.9000 0.9000   1.14  2  2  1.6E-02
 11 :  -5.04E+01 1.59E+03 0.000 0.5532 0.9000 0.9000   1.10  3  3  1.6E-02
 12 :  -4.07E+01 1.03E+03 0.000 0.6460 0.9000 0.9000   1.08  4  3  1.5E-02
 13 :  -3.79E+01 6.13E+02 0.000 0.5973 0.9000 0.9000   1.06  4  3  1.5E-02
 14 :  -3.12E+01 1.85E+02 0.000 0.3019 0.9000 0.9000   1.10  4  4  1.6E-02
 15 :  -2.64E+01 8.57E+01 0.000 0.4627 0.9000 0.9000   1.08 23 23  1.7E-02
 16 :  -1.91E+01 4.65E+01 0.000 0.5432 0.9000 0.9000   1.08 51 51  1.8E-02
 17 :  -1.53E+01 2.69E+01 0.000 0.5787 0.9000 0.9000   1.04 51 51  2.1E-02
Run into numerical problems.

iter seconds digits       c*x               b*y
 17      0.8  -0.3  2.3677507903e+01 -1.5313669337e+01
|Ax-b| =   2.4e-01, [Ay-c]_+ =   2.4E-05, |x|=  4.0e+04, |y|=  1.0e+02
No sensible solution found.

Detailed timing (sec)
   Pre          IPM          Post
1.599E-02    2.030E-01    0.000E+00
Max-norms: ||b||=1.972966e+05, ||c|| = 5.256842e+01,
Cholesky |add|=0, |skip| = 17, ||L.L|| = 72016.7.

ans =

   15.2366

Iteration   6   Total error is: 0.015694
The coefficient matrix is not full row rank, numerical problems may occur.
SeDuMi 1.32 by AdvOL, 2005-2008 and Jos F. Sturm, 1998-2003.
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Alg = 2: xz-corrector, theta = 0.250, beta = 0.500
Put 5 free variables in a quadratic cone
eqs m = 85, order n = 805, dim = 893, blocks = 3
nnz(A) = 20773 + 0, nnz(ADA) = 7225, nnz(L) = 3655
 it :     b*y       gap    delta  rate   t/tP*  t/tD*   feas cg cg  prec
  0 :            6.53E+05 0.000
  1 :  -4.29E+01 5.21E+05 0.000 0.7974 0.9000 0.9000  13.92  2  1  1.1E+00
  2 :  -4.61E+01 3.37E+05 0.000 0.6465 0.9000 0.9000  13.41  2  2  2.0E-01
  3 :  -4.52E+01 2.39E+05 0.000 0.7092 0.9000 0.9000   2.88  2  2  1.2E-01
  4 :  -4.73E+01 1.15E+05 0.000 0.4814 0.9000 0.9000   2.14  2  2  5.5E-02
  5 :  -4.73E+01 6.21E+04 0.000 0.5405 0.9000 0.9000   1.55  2  2  3.5E-02
  6 :  -4.74E+01 3.38E+04 0.000 0.5446 0.9000 0.9000   1.37  2  2  2.6E-02
  7 :  -4.78E+01 2.02E+04 0.000 0.5978 0.9000 0.9000   1.27  2  2  2.2E-02
  8 :  -4.99E+01 8.59E+03 0.000 0.4248 0.9000 0.9000   1.24  2  2  1.8E-02
  9 :  -4.90E+01 3.51E+03 0.000 0.4088 0.9000 0.9000   1.17  2  2  1.6E-02
 10 :  -4.23E+01 1.97E+03 0.000 0.5597 0.9000 0.9000   1.09  3  3  1.5E-02
 11 :  -3.33E+01 1.22E+03 0.000 0.6204 0.9000 0.9000   1.07  3  3  1.5E-02
 12 :  -3.05E+01 4.85E+02 0.000 0.3978 0.9000 0.9000   1.08  3  3  1.5E-02
 13 :  -2.58E+01 1.41E+02 0.000 0.2911 0.9000 0.9000   1.09  4  4  1.5E-02
 14 :  -1.95E+01 6.51E+01 0.000 0.4609 0.9000 0.9000   1.08 39 43  1.6E-02
 15 :  -1.53E+01 3.97E+01 0.000 0.6098 0.9000 0.9000   1.05 51 51  1.8E-02
Run into numerical problems.

iter seconds digits       c*x               b*y
 15      0.7  -0.5  4.2442293006e+01 -1.5326016551e+01
|Ax-b| =   3.7e-01, [Ay-c]_+ =   3.6E-05, |x|=  3.7e+04, |y|=  1.0e+02
No sensible solution found.

Detailed timing (sec)
   Pre          IPM          Post
0.000E+00    1.870E-01    0.000E+00
Max-norms: ||b||=1.929946e+05, ||c|| = 5.256842e+01,
Cholesky |add|=0, |skip| = 16, ||L.L|| = 76482.

ans =

   15.2438

Iteration   7   Total error is: 0.015643
The coefficient matrix is not full row rank, numerical problems may occur.
SeDuMi 1.32 by AdvOL, 2005-2008 and Jos F. Sturm, 1998-2003.
Alg = 2: xz-corrector, theta = 0.250, beta = 0.500
Put 5 free variables in a quadratic cone
eqs m = 85, order n = 805, dim = 893, blocks = 3
nnz(A) = 20773 + 0, nnz(ADA) = 7225, nnz(L) = 3655
 it :     b*y       gap    delta  rate   t/tP*  t/tD*   feas cg cg  prec
  0 :            6.86E+05 0.000
  1 :  -4.14E+01 5.49E+05 0.000 0.7991 0.9000 0.9000  13.94  2  2  1.2E+00
  2 :  -4.45E+01 3.71E+05 0.000 0.6756 0.9000 0.9000  13.70  2  2  2.2E-01
  3 :  -4.45E+01 2.54E+05 0.000 0.6846 0.9000 0.9000   3.15  2  2  1.2E-01
  4 :  -4.66E+01 1.24E+05 0.000 0.4890 0.9000 0.9000   2.20  2  2  5.4E-02
  5 :  -4.56E+01 6.21E+04 0.000 0.5008 0.9000 0.9000   1.56  2  2  3.3E-02
  6 :  -4.49E+01 3.54E+04 0.000 0.5690 0.9000 0.9000   1.36  2  2  2.5E-02
  7 :  -4.54E+01 2.02E+04 0.000 0.5724 0.9000 0.9000   1.27  2  2  2.1E-02
  8 :  -4.64E+01 5.91E+03 0.000 0.2922 0.9000 0.9000   1.22  2  2  1.6E-02
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  9 :  -4.32E+01 2.95E+03 0.000 0.4987 0.9000 0.9000   1.11  2  2  1.6E-02
 10 :  -3.60E+01 1.88E+03 0.000 0.6391 0.9000 0.9000   1.06  3  3  1.5E-02
 11 :  -2.95E+01 9.61E+02 0.000 0.5100 0.9000 0.9000   1.07  3  3  1.5E-02
 12 :  -2.79E+01 3.40E+02 0.000 0.3542 0.9000 0.9000   1.08  3  3  1.5E-02
 13 :  -2.44E+01 1.44E+02 0.000 0.4243 0.9000 0.9000   1.07  4  4  1.5E-02
 14 :  -1.73E+01 6.03E+01 0.000 0.4173 0.9000 0.9000   1.07 51 50  1.6E-02
Run into numerical problems.

iter seconds digits       c*x               b*y
 14      0.7  -0.6  7.1205439316e+01 -1.7281018734e+01
|Ax-b| =   5.7e-01, [Ay-c]_+ =   5.4E-05, |x|=  3.5e+04, |y|=  1.1e+02
No sensible solution found.

Detailed timing (sec)
   Pre          IPM          Post
0.000E+00    1.710E-01    0.000E+00
Max-norms: ||b||=2.027837e+05, ||c|| = 5.256842e+01,
Cholesky |add|=0, |skip| = 13, ||L.L|| = 98123.4.

ans =

   17.0840

Iteration   8   Total error is: 0.016418
The total representation error of the testing signals is: 0.030771
>>
```