```
   demo_Polynomial_Dictionary_Learning_Uber
Starting to train the dictionary
solving the quadratic problem with YALMIP...

 num. of constraints =  9
 dim. of socp   var  = 10,   num. of socp blk  =  1
 dim. of linear var  = 118
 2 linear variables from unrestricted variable.

 *** convert ublk to linear blk
**********************************************************************************↙
********
   SDPT3: homogeneous self-dual path-following algorithms
**********************************************************************************↙
********
 version  predcorr  gam  expon
   HKM      1      0.000   1
it pstep dstep pinfeas dinfeas  gap     mean(obj)    cputime    kap   tau    theta
----------------------------------------------------------------------------------↙
--------
 0|0.000|0.000|1.2e+00|4.2e+00|2.8e+04| 5.843870e+02| 0:0:00|2.8e+04|1.0e+00|1.↙
0e+00| chol 1  1
 1|0.913|0.913|1.1e-01|3.8e-01|3.0e+03| 4.484996e+02| 0:0:00|5.2e+02|1.1e+00|9.8e-↙
02| chol 1  1
 2|0.699|0.699|6.5e-02|2.3e-01|2.4e+03| 3.809710e+02| 0:0:00|2.3e+02|9.7e-01|5.4e-↙
02| chol 1  1
 3|1.000|1.000|3.0e-02|1.1e-01|1.4e+03| 2.408621e+02| 0:0:00|3.3e+01|9.2e-01|2.3e-↙
02| chol 1  1
 4|0.932|0.932|7.4e-03|2.7e-02|3.2e+02| 1.413431e+01| 0:0:00|8.1e+00|1.0e+00|6.4e-↙
03| chol 1  1
 5|0.985|0.985|1.1e-03|4.0e-03|4.6e+01|-5.909104e+01| 0:0:00|2.3e+00|1.1e+00|1.0e-↙
03| chol 1  1
 6|1.000|1.000|1.6e-04|7.3e-04|7.3e+00|-7.042306e+01| 0:0:00|3.7e-01|1.1e+00|1.5e-↙
04| chol 1  1
 7|0.969|0.969|6.7e-06|2.1e-04|2.6e-01|-7.229796e+01| 0:0:00|5.9e-02|1.1e+00|6.3e-↙
06| chol 1  1
 8|0.826|0.826|1.4e-06|1.0e-04|4.6e-02|-7.232578e+01| 0:0:00|1.3e-03|1.3e+00|1.6e-↙
06| chol 1  1
 9|0.952|0.952|2.2e-07|3.6e-05|6.0e-03|-7.233112e+01| 0:0:00|3.1e-04|1.5e+00|2.8e-↙
07| chol 1  1
10|0.975|0.975|3.4e-08|1.4e-05|7.1e-04|-7.233208e+01| 0:0:00|5.2e-05|1.7e+00|4.0e-↙
08| chol 1  1
11|0.988|0.988|2.1e-08|5.5e-06|8.4e-05|-7.233228e+01| 0:0:00|8.7e-06|1.7e+00|4.9e-↙
09| chol 1  1
12|0.993|0.993|4.4e-08|2.2e-06|1.1e-05|-7.233234e+01| 0:0:00|1.2e-06|1.8e+00|3.9e-↙
10| chol 1  1
13|1.000|1.000|1.5e-08|4.3e-07|2.9e-06|-7.233238e+01| 0:0:00|1.6e-07|1.8e+00|1.0e-↙
10| chol 1  1
14|0.999|0.999|1.6e-08|4.5e-08|3.4e-07|-7.233239e+01| 0:0:00|4.1e-08|1.8e+00|0.↙
0e+00|
  Stop: max(relative gap,infeasibilities) < 1.00e-07
-------------------------------------------------------------------
 number of iterations   = 14
 primal objective value = -7.23323951e+01
```

```
 dual   objective value = -7.23323902e+01
 gap := trace(XZ)       = 3.40e-07
 relative gap           = 4.64e-09
 actual relative gap    = -3.37e-08
 rel. primal infeas     = 1.59e-08
 rel. dual   infeas     = 4.51e-08
 norm(X), norm(y), norm(Z) = 1.1e+02, 9.1e+01, 7.9e+01
 norm(A), norm(b), norm(C) = 1.4e+02, 1.4e+00, 4.4e+01
 Total CPU time (secs)  = 0.44
 CPU time per iteration = 0.03
 termination code       =  0
 DIMACS errors: 1.6e-08  0.0e+00  4.5e-08  0.0e+00  -3.4e-08  2.3e-09
------------------------------------------------------------------

ans =

   72.3324


 num. of constraints =  9
 dim. of socp   var  = 10,   num. of socp blk  =  1
 dim. of linear var  = 118
*******************************************************************
   SDPT3: Infeasible path-following algorithms
*******************************************************************
 version  predcorr  gam  expon  scale_data
   HKM      1      0.000   1        0
it pstep dstep pinfeas dinfeas  gap      prim-obj      dual-obj    cputime
-------------------------------------------------------------------
 0|0.000|0.000|9.5e-01|3.1e+00|4.3e+04| 1.829951e+03  0.000000e+00| 0:0:00| chol  1↙
1
 1|0.993|0.855|6.7e-03|4.7e-01|8.4e+03| 1.822433e+03 -4.011629e+00| 0:0:00| chol  1↙
1
 2|1.000|0.851|5.0e-07|7.1e-02|2.5e+03| 1.336416e+03 -3.810220e+01| 0:0:00| chol  1↙
1
 3|0.644|0.609|2.4e-07|2.8e-02|1.4e+03| 7.547942e+02 -5.328553e+01| 0:0:00| chol  1↙
1
 4|0.696|0.938|1.5e-07|1.8e-03|5.2e+02| 4.020518e+02 -6.782124e+01| 0:0:00| chol  1↙
1
 5|0.942|0.987|7.2e-09|4.4e-05|2.9e+01|-3.813065e+01 -6.557756e+01| 0:0:00| chol  1↙
1
 6|0.978|0.975|6.5e-09|7.4e-06|7.7e-01|-6.470395e+01 -6.532766e+01| 0:0:00| chol  1↙
1
 7|0.985|0.987|1.2e-08|2.0e-06|3.4e-02|-6.531016e+01 -6.532379e+01| 0:0:00| chol  1↙
1
 8|0.990|0.995|3.3e-09|2.1e-07|2.4e-03|-6.532389e+01 -6.532469e+01| 0:0:00| chol  1↙
1
 9|0.986|0.980|3.8e-10|4.8e-09|1.1e-04|-6.532473e+01 -6.532481e+01| 0:0:00| chol  1↙
1
10|0.996|0.981|5.6e-12|1.7e-10|1.1e-05|-6.532480e+01 -6.532481e+01| 0:0:00|
  stop: max(relative gap, infeasibilities) < 1.00e-07
-------------------------------------------------------------------
 number of iterations   = 10
 primal objective value = -6.53247998e+01
```

```
 dual   objective value = -6.53248098e+01
 gap := trace(XZ)       = 1.11e-05
 relative gap           = 8.43e-08
 actual relative gap    = 7.66e-08
 rel. primal infeas     = 5.59e-12
 rel. dual   infeas     = 1.68e-10
 norm(X), norm(y), norm(Z) = 2.6e+02, 1.0e+02, 9.6e+01
 norm(A), norm(b), norm(C) = 6.9e+00, 3.6e+00, 4.5e+01
 Total CPU time (secs)  = 0.11
 CPU time per iteration = 0.01
 termination code       =  0
 DIMACS errors: 6.0e-12  0.0e+00  2.3e-10  0.0e+00  7.7e-08  8.4e-08
------------------------------------------------------------------

ans =

   65.3248

Iteration   2   Total error is: 0.078385

 num. of constraints =  9
 dim. of socp   var  = 10,   num. of socp blk  =  1
 dim. of linear var  = 118
*******************************************************************
   SDPT3: Infeasible path-following algorithms
*******************************************************************
 version  predcorr  gam  expon  scale_data
   HKM      1      0.000   1        0
it pstep dstep pinfeas dinfeas  gap      prim-obj      dual-obj    cputime
-------------------------------------------------------------------
 0|0.000|0.000|9.6e-01|3.1e+00|4.4e+04| 1.887617e+03  0.000000e+00| 0:0:00| chol  1↙
1
 1|0.984|0.852|1.6e-02|4.7e-01|8.7e+03| 1.882157e+03 -1.946565e+00| 0:0:00| chol  1↙
1
 2|1.000|0.854|5.0e-07|7.1e-02|2.6e+03| 1.401106e+03 -3.781473e+01| 0:0:00| chol  1↙
1
 3|0.655|0.617|2.3e-07|2.7e-02|1.4e+03| 7.770090e+02 -5.317230e+01| 0:0:00| chol  1↙
1
 4|0.715|0.938|1.4e-07|1.7e-03|5.2e+02| 4.001027e+02 -6.750919e+01| 0:0:00| chol  1↙
1
 5|0.942|0.986|6.8e-09|4.5e-05|2.9e+01|-3.782159e+01 -6.520142e+01| 0:0:00| chol  1↙
1
 6|0.977|0.972|6.3e-09|7.6e-06|8.0e-01|-6.429339e+01 -6.494273e+01| 0:0:00| chol  1↙
1
 7|0.986|0.989|9.7e-09|2.0e-06|3.9e-02|-6.492094e+01 -6.493753e+01| 0:0:00| chol  1↙
1
 8|0.981|0.989|2.7e-09|2.2e-07|2.8e-03|-6.493736e+01 -6.493835e+01| 0:0:00| chol  1↙
1
 9|0.985|0.976|3.8e-10|5.9e-09|1.5e-04|-6.493836e+01 -6.493847e+01| 0:0:00| chol  1↙
1
10|0.979|0.985|8.2e-12|1.6e-10|5.0e-06|-6.493847e+01 -6.493847e+01| 0:0:00|
  stop: max(relative gap, infeasibilities) < 1.00e-07
-------------------------------------------------------------------
 number of iterations   = 10
```

```
 primal objective value = -6.49384667e+01
 dual   objective value = -6.49384707e+01
 gap := trace(XZ)       = 5.01e-06
 relative gap           = 3.83e-08
 actual relative gap    = 3.07e-08
 rel. primal infeas     = 8.23e-12
 rel. dual   infeas     = 1.65e-10
 norm(X), norm(y), norm(Z) = 2.6e+02, 1.0e+02, 9.7e+01
 norm(A), norm(b), norm(C) = 6.8e+00, 3.6e+00, 4.5e+01
 Total CPU time (secs)  = 0.07
 CPU time per iteration = 0.01
 termination code       =  0
 DIMACS errors: 8.8e-12  0.0e+00  2.3e-10  0.0e+00  3.1e-08  3.8e-08
------------------------------------------------------------------

ans =

   64.9385

Iteration   3   Total error is: 0.078352

 num. of constraints =  9
 dim. of socp   var  = 10,   num. of socp blk  =  1
 dim. of linear var  = 118
*******************************************************************
   SDPT3: Infeasible path-following algorithms
*******************************************************************
 version  predcorr  gam  expon  scale_data
   HKM      1      0.000   1        0
it pstep dstep pinfeas dinfeas  gap      prim-obj      dual-obj    cputime
-------------------------------------------------------------------
 0|0.000|0.000|9.6e-01|3.1e+00|4.4e+04| 1.873594e+03  0.000000e+00| 0:0:00| chol  1↙
1
 1|0.987|0.853|1.3e-02|4.7e-01|8.6e+03| 1.863068e+03 -2.869899e+00| 0:0:00| chol  1↙
1
 2|1.000|0.852|5.0e-07|7.1e-02|2.6e+03| 1.382515e+03 -3.812641e+01| 0:0:00| chol  1↙
1
 3|0.649|0.613|2.4e-07|2.8e-02|1.4e+03| 7.749035e+02 -5.358050e+01| 0:0:00| chol  1↙
1
 4|0.704|0.938|1.4e-07|1.8e-03|5.2e+02| 4.072484e+02 -6.820745e+01| 0:0:00| chol  1↙
1
 5|0.942|0.986|7.2e-09|4.5e-05|2.9e+01|-3.806148e+01 -6.590486e+01| 0:0:00| chol  1↙
1
 6|0.978|0.973|6.1e-09|7.6e-06|7.8e-01|-6.502291e+01 -6.564731e+01| 0:0:00| chol  1↙
1
 7|0.985|0.987|8.8e-09|2.0e-06|3.7e-02|-6.562792e+01 -6.564259e+01| 0:0:00| chol  1↙
1
 8|0.988|0.991|2.2e-09|2.1e-07|2.6e-03|-6.564262e+01 -6.564347e+01| 0:0:00| chol  1↙
1
 9|0.985|0.974|3.3e-10|5.9e-09|1.4e-04|-6.564348e+01 -6.564358e+01| 0:0:00| chol  1↙
1
10|0.981|0.986|6.5e-12|1.5e-10|4.5e-06|-6.564358e+01 -6.564359e+01| 0:0:00|
  stop: max(relative gap, infeasibilities) < 1.00e-07
-------------------------------------------------------------------
```

```
 number of iterations   = 10
 primal objective value = -6.56435838e+01
 dual   objective value = -6.56435874e+01
 gap := trace(XZ)       = 4.49e-06
 relative gap           = 3.39e-08
 actual relative gap    = 2.74e-08
 rel. primal infeas     = 6.49e-12
 rel. dual   infeas     = 1.49e-10
 norm(X), norm(y), norm(Z) = 2.5e+02, 1.0e+02, 9.7e+01
 norm(A), norm(b), norm(C) = 6.9e+00, 3.6e+00, 4.5e+01
 Total CPU time (secs)  = 0.08
 CPU time per iteration = 0.01
 termination code       =  0
 DIMACS errors: 6.9e-12  0.0e+00  2.0e-10  0.0e+00  2.7e-08  3.4e-08
------------------------------------------------------------------

ans =

   65.6436

Iteration   4   Total error is: 0.078351

 num. of constraints =  9
 dim. of socp   var  = 10,   num. of socp blk  =  1
 dim. of linear var  = 118
*******************************************************************
   SDPT3: Infeasible path-following algorithms
*******************************************************************
 version  predcorr  gam  expon  scale_data
   HKM      1      0.000   1        0
it pstep dstep pinfeas dinfeas  gap      prim-obj      dual-obj    cputime
-------------------------------------------------------------------
 0|0.000|0.000|9.5e-01|3.1e+00|4.4e+04| 1.871243e+03  0.000000e+00| 0:0:00| chol  1↙
1
 1|0.988|0.853|1.2e-02|4.7e-01|8.6e+03| 1.860890e+03 -3.233461e+00| 0:0:00| chol  1↙
1
 2|1.000|0.852|5.0e-07|7.2e-02|2.6e+03| 1.379216e+03 -3.831297e+01| 0:0:00| chol  1↙
1
 3|0.646|0.610|2.4e-07|2.8e-02|1.4e+03| 7.771707e+02 -5.386627e+01| 0:0:00| chol  1↙
1
 4|0.699|0.938|1.5e-07|1.8e-03|5.3e+02| 4.125131e+02 -6.869079e+01| 0:0:00| chol  1↙
1
 5|0.942|0.986|7.4e-09|4.5e-05|2.9e+01|-3.818840e+01 -6.638133e+01| 0:0:00| chol  1↙
1
 6|0.979|0.973|6.0e-09|7.6e-06|7.5e-01|-6.552204e+01 -6.612310e+01| 0:0:00| chol  1↙
1
 7|0.985|0.986|7.7e-09|2.0e-06|3.5e-02|-6.610508e+01 -6.611861e+01| 0:0:00| chol  1↙
1
 8|0.990|0.993|1.8e-09|2.1e-07|2.5e-03|-6.611869e+01 -6.611952e+01| 0:0:00| chol  1↙
1
 9|0.985|0.978|2.5e-10|5.0e-09|1.3e-04|-6.611954e+01 -6.611963e+01| 0:0:00| chol  1↙
1
10|0.996|0.983|1.8e-11|1.4e-10|1.1e-05|-6.611963e+01 -6.611964e+01| 0:0:00|
  stop: max(relative gap, infeasibilities) < 1.00e-07
```

```
-----------------------------------------------------------------
 number of iterations   = 10
 primal objective value = -6.61196260e+01
 dual   objective value = -6.61196358e+01
 gap := trace(XZ)       = 1.07e-05
 relative gap           = 8.02e-08
 actual relative gap    = 7.38e-08
 rel. primal infeas     = 1.82e-11
 rel. dual   infeas     = 1.36e-10
 norm(X), norm(y), norm(Z) = 2.7e+02, 1.0e+02, 9.7e+01
 norm(A), norm(b), norm(C) = 6.9e+00, 3.6e+00, 4.5e+01
 Total CPU time (secs)  = 0.07
 CPU time per iteration = 0.01
 termination code       =  0
 DIMACS errors: 1.9e-11  0.0e+00  1.9e-10  0.0e+00  7.4e-08  8.0e-08
-----------------------------------------------------------------

ans =

   66.1196

Iteration   5   Total error is: 0.07836

 num. of constraints =  9
 dim. of socp   var  = 10,   num. of socp blk  =  1
 dim. of linear var  = 118
*****************************************************************
   SDPT3: Infeasible path-following algorithms
*****************************************************************
 version  predcorr  gam  expon  scale_data
   HKM      1      0.000   1        0
it pstep dstep pinfeas dinfeas  gap      prim-obj      dual-obj    cputime
-----------------------------------------------------------------
 0|0.000|0.000|9.6e-01|3.1e+00|4.3e+04| 1.861659e+03  0.000000e+00| 0:0:00| chol  1↙
1
 1|0.987|0.853|1.2e-02|4.7e-01|8.6e+03| 1.856184e+03 -2.699445e+00| 0:0:00| chol  1↙
1
 2|1.000|0.853|5.0e-07|7.1e-02|2.6e+03| 1.373182e+03 -3.785055e+01| 0:0:00| chol  1↙
1
 3|0.651|0.614|2.4e-07|2.8e-02|1.4e+03| 7.665822e+02 -5.309547e+01| 0:0:00| chol  1↙
1
 4|0.709|0.938|1.4e-07|1.8e-03|5.2e+02| 3.996375e+02 -6.746387e+01| 0:0:00| chol  1↙
1
 5|0.942|0.986|6.9e-09|4.4e-05|2.9e+01|-3.786740e+01 -6.518771e+01| 0:0:00| chol  1↙
1
 6|0.977|0.973|6.4e-09|7.5e-06|8.0e-01|-6.428313e+01 -6.493305e+01| 0:0:00| chol  1↙
1
 7|0.985|0.988|1.1e-08|2.0e-06|3.8e-02|-6.491268e+01 -6.492837e+01| 0:0:00| chol  1↙
1
 8|0.983|0.990|3.1e-09|2.2e-07|2.7e-03|-6.492830e+01 -6.492922e+01| 0:0:00| chol  1↙
1
 9|0.985|0.975|4.3e-10|6.0e-09|1.5e-04|-6.492924e+01 -6.492934e+01| 0:0:00| chol  1↙
1
10|0.980|0.986|9.9e-12|1.6e-10|4.6e-06|-6.492934e+01 -6.492934e+01| 0:0:00|
```

```
  stop: max(relative gap, infeasibilities) < 1.00e-07
-------------------------------------------------------------------
 number of iterations   = 10
 primal objective value = -6.49293375e+01
 dual   objective value = -6.49293412e+01
 gap := trace(XZ)       = 4.62e-06
 relative gap           = 3.53e-08
 actual relative gap    = 2.83e-08
 rel. primal infeas     = 9.92e-12
 rel. dual   infeas     = 1.58e-10
 norm(X), norm(y), norm(Z) = 2.5e+02, 1.0e+02, 9.6e+01
 norm(A), norm(b), norm(C) = 6.8e+00, 3.6e+00, 4.5e+01
 Total CPU time (secs)  = 0.05
 CPU time per iteration = 0.01
 termination code       =  0
 DIMACS errors: 1.1e-11  0.0e+00  2.2e-10  0.0e+00  2.8e-08  3.5e-08
-------------------------------------------------------------------

ans =

   64.9293

Iteration   6   Total error is: 0.078347

 num. of constraints =  9
 dim. of socp   var  = 10,   num. of socp blk  =  1
 dim. of linear var  = 118
*******************************************************************
   SDPT3: Infeasible path-following algorithms
*******************************************************************
 version  predcorr  gam  expon  scale_data
   HKM      1      0.000   1        0
it pstep dstep pinfeas dinfeas  gap      prim-obj      dual-obj    cputime
-------------------------------------------------------------------
 0|0.000|0.000|9.6e-01|3.1e+00|4.4e+04| 1.866712e+03  0.000000e+00| 0:0:00| chol  1↙
1
 1|0.987|0.853|1.3e-02|4.7e-01|8.6e+03| 1.857612e+03 -2.692572e+00| 0:0:00| chol  1↙
1
 2|1.000|0.853|5.0e-07|7.1e-02|2.6e+03| 1.376169e+03 -3.789589e+01| 0:0:00| chol  1↙
1
 3|0.652|0.615|2.4e-07|2.8e-02|1.4e+03| 7.675229e+02 -5.316551e+01| 0:0:00| chol  1↙
1
 4|0.709|0.938|1.4e-07|1.8e-03|5.2e+02| 3.995872e+02 -6.753267e+01| 0:0:00| chol  1↙
1
 5|0.942|0.986|6.9e-09|4.4e-05|2.9e+01|-3.793682e+01 -6.525249e+01| 0:0:00| chol  1↙
1
 6|0.977|0.973|6.3e-09|7.6e-06|8.0e-01|-6.435028e+01 -6.499749e+01| 0:0:00| chol  1↙
1
 7|0.985|0.988|1.1e-08|2.0e-06|3.8e-02|-6.497701e+01 -6.499274e+01| 0:0:00| chol  1↙
1
 8|0.983|0.990|2.9e-09|2.2e-07|2.7e-03|-6.499266e+01 -6.499359e+01| 0:0:00| chol  1↙
1
 9|0.985|0.975|4.2e-10|6.0e-09|1.5e-04|-6.499361e+01 -6.499371e+01| 0:0:00| chol  1↙
1
```

```
10|0.980|0.986|1.7e-11|1.6e-10|4.7e-06|-6.499371e+01 -6.499371e+01| 0:0:00|
  stop: max(relative gap, infeasibilities) < 1.00e-07
-------------------------------------------------------------------
 number of iterations   = 10
 primal objective value = -6.49937077e+01
 dual   objective value = -6.49937114e+01
 gap := trace(XZ)       = 4.67e-06
 relative gap           = 3.57e-08
 actual relative gap    = 2.86e-08
 rel. primal infeas     = 1.72e-11
 rel. dual   infeas     = 1.59e-10
 norm(X), norm(y), norm(Z) = 2.5e+02, 1.0e+02, 9.6e+01
 norm(A), norm(b), norm(C) = 6.9e+00, 3.6e+00, 4.5e+01
 Total CPU time (secs)  = 0.05
 CPU time per iteration = 0.01
 termination code       =  0
 DIMACS errors: 1.8e-11  0.0e+00  2.2e-10  0.0e+00  2.9e-08  3.6e-08
-------------------------------------------------------------------

ans =

   64.9937

Iteration   7   Total error is: 0.078347

 num. of constraints =  9
 dim. of socp   var  = 10,   num. of socp blk  =  1
 dim. of linear var  = 118
*******************************************************************
   SDPT3: Infeasible path-following algorithms
*******************************************************************
 version  predcorr  gam  expon  scale_data
   HKM      1      0.000   1        0
it pstep dstep pinfeas dinfeas  gap      prim-obj      dual-obj    cputime
-------------------------------------------------------------------
 0|0.000|0.000|9.6e-01|3.1e+00|4.4e+04| 1.885415e+03  0.000000e+00| 0:0:00| chol  1↙
1
 1|0.985|0.853|1.4e-02|4.7e-01|8.7e+03| 1.876583e+03 -2.416669e+00| 0:0:00| chol  1↙
1
 2|1.000|0.853|5.0e-07|7.1e-02|2.6e+03| 1.395318e+03 -3.802656e+01| 0:0:00| chol  1↙
1
 3|0.653|0.615|2.4e-07|2.8e-02|1.4e+03| 7.773131e+02 -5.345817e+01| 0:0:00| chol  1↙
1
 4|0.711|0.938|1.4e-07|1.8e-03|5.2e+02| 4.038208e+02 -6.794111e+01| 0:0:00| chol  1↙
1
 5|0.942|0.986|6.9e-09|4.5e-05|2.9e+01|-3.800902e+01 -6.563008e+01| 0:0:00| chol  1↙
1
 6|0.978|0.972|6.1e-09|7.6e-06|7.9e-01|-6.473264e+01 -6.537145e+01| 0:0:00| chol  1↙
1
 7|0.986|0.988|8.8e-09|2.0e-06|3.8e-02|-6.535061e+01 -6.536640e+01| 0:0:00| chol  1↙
1
 8|0.983|0.990|2.3e-09|2.2e-07|2.7e-03|-6.536630e+01 -6.536725e+01| 0:0:00| chol  1↙
1
 9|0.985|0.975|3.4e-10|5.9e-09|1.5e-04|-6.536726e+01 -6.536736e+01| 0:0:00| chol  1↙
```

```
1
10|0.980|0.985|8.2e-12|1.5e-10|4.8e-06|-6.536736e+01 -6.536737e+01| 0:0:00|
  stop: max(relative gap, infeasibilities) < 1.00e-07
------------------------------------------------------------------------
 number of iterations   = 10
 primal objective value = -6.53673634e+01
 dual   objective value = -6.53673672e+01
 gap := trace(XZ)       = 4.80e-06
 relative gap           = 3.64e-08
 actual relative gap    = 2.95e-08
 rel. primal infeas     = 8.24e-12
 rel. dual   infeas     = 1.54e-10
 norm(X), norm(y), norm(Z) = 2.6e+02, 1.0e+02, 9.7e+01
 norm(A), norm(b), norm(C) = 6.9e+00, 3.6e+00, 4.5e+01
 Total CPU time (secs)  = 0.07
 CPU time per iteration = 0.01
 termination code       =  0
 DIMACS errors: 8.8e-12  0.0e+00  2.1e-10  0.0e+00  2.9e-08  3.6e-08
------------------------------------------------------------------------

ans =

   65.3674

Iteration   8   Total error is: 0.078347
The total representation error of the testing signals is: 0.37405
>>
```