```
"E:\1 □□□□\3 □□□□□\1 □□□□□□\1 □□□□□□□□\1_□□□□□□_□□□□\1_LW _□□□□\4 □□□□\3 python_code\1 exzample\2 □□□□□□\9 Code for this paper\Scripts\python.exe" "D:\Python\Pycharm\setroute\PyCharm Community Edition 2021.2.3\plugins\python-ce\helpers\pydev\pydevconsole.py" --mode=client --port=37960

import sys; print('Python %s on %s' % (sys.version, sys.platform))
sys.path.extend(['E:\\1 □□□□\\3 □□□□□\\1 □□□□□□\\1 □□□□□□□□\\1_□□□□□□_□□□□\\1_LW _□□□□\\4 □□□□\\3 python_code\\9 Code for this paper', 'E:/1 □□□□/3 □□□□□/1 □□□□□□/1 □□□□□□□□/1_□□□□□□_□□□□/1_LW _□□□□/4 □□□□/3 python_code/9 Code for this paper'])

PyDev console: starting.

Python 3.9.7 (tags/v3.9.7:1016ef3, Aug 30 2021, 20:19:38) [MSC v.1929 64 bit (AMD64)] on win32
>>> runfile('E:/1 □□□□/3 □□□□□/1 □□□□□□/1 □□□□□□□□/1_□□□□□□_□□□□/1_LW _□□□□/4 □□□□/3 python_code/9 Code for this paper/main_RO_CCG.py', wdir='E:/1 □□□□/3 □□□□□/1 □□□□□□/1 □□□□□□□□/1_□□□□□□_□□□□/1_LW _□□□□/4 □□□□/3 python_code/9 Code for this paper')
Backend TkAgg is interactive backend. Turning interactive mode on.
Waiting 5s.....
Set parameter MIPGap to value 1e-10
Gurobi Optimizer version 10.0.2 build v10.0.2rc0 (win64)

CPU model: 11th Gen Intel(R) Core(TM) i7-11370H @ 3.30GHz, instruction set [SSE2|AVX|AVX2|AVX512]
Thread count: 4 physical cores, 8 logical processors, using up to 8 threads

Optimize a model with 860041 rows, 90076 columns and 2468335 nonzeros
Model fingerprint: 0x6271bfbf
Variable types: 1 continuous, 90075 integer (90015 binary)
Coefficient statistics:
  Matrix range     [1e+00, 1e+10]
  Objective range  [1e+00, 2e+01]
  Bounds range     [1e+00, 1e+00]
  RHS range        [1e+00, 2e+10]
Warning: Model contains large matrix coefficients
Warning: Model contains large rhs
         Consider reformulating model or setting NumericFocus parameter
         to avoid numerical issues.
Presolve removed 404354 rows and 28770 columns (presolve time = 5s) ...
Presolve removed 415511 rows and 30650 columns (presolve time = 10s) ...
Presolve removed 415511 rows and 30650 columns (presolve time = 15s) ...
Presolve removed 415511 rows and 30650 columns (presolve time = 20s) ...
Presolve removed 566594 rows and 54526 columns (presolve time = 25s) ...
Presolve removed 646250 rows and 54526 columns
Presolve time: 26.07s
Presolved: 213791 rows, 35550 columns, 548464 nonzeros
Variable types: 0 continuous, 35550 integer (35505 binary)

Deterministic concurrent LP optimizer: primal simplex, dual simplex, and barrier
Showing barrier log only...

Root relaxation presolved: 35550 rows, 249341 columns, 584014 nonzeros

Root barrier log...

Elapsed ordering time = 5s
Elapsed ordering time = 5s
Elapsed ordering time = 7s
Ordering time: 7.98s

Barrier statistics:
 Dense cols : 15
 Free vars  : 45
 AA' NZ     : 1.773e+06
 Factor NZ  : 2.128e+08 (roughly 2.0 GB of memory)
 Factor Ops : 2.176e+12 (roughly 60 seconds per iteration)
 Threads    : 1

Barrier performed 0 iterations in 36.94 seconds (33.35 work units)
Barrier solve interrupted - model solved by another algorithm

Concurrent spin time: 1.32s (can be avoided by choosing Method=3)

Solved with dual simplex

Root relaxation: objective 1.003000e+03, 12260 iterations, 10.09 seconds (10.00 work units)

    Nodes    |    Current Node    |     Objective Bounds      |     Work
 Expl Unexpl |  Obj  Depth IntInf | Incumbent    BestBd   Gap | It/Node Time

     0     0 1003.00000    0   44          - 1003.00000      -     -   38s
     0     0 1003.00000    0  248          - 1003.00000      -     -   41s
     0     0 1003.00000    0  242          - 1003.00000      -     -   41s
     0     0 1003.00000    0  236          - 1003.00000      -     -   42s
     0     0 1003.00000    0   79          - 1003.00000      -     -   46s
     0     0 1003.00000    0  137          - 1003.00000      -     -   46s
     0     0 1003.00000    0  152          - 1003.00000      -     -   47s
     0     0 1003.00000    0  149          - 1003.00000      -     -   47s
```

```
  80       0    0 1003.00000    0  102          - 1003.00000      -     -   52s
  81       0    0 1003.00000    0  105          - 1003.00000      -     -   53s
  82       0    0 1003.00000    0  257          - 1003.00000      -     -   56s
  83       0    0 1003.00000    0  236          - 1003.00000      -     -   57s
  84       0    0 1003.00000    0  245          - 1003.00000      -     -   64s
  85       0    0 1003.00000    0  252          - 1003.00000      -     -   64s
  86       0    0 1003.00000    0  410          - 1003.00000      -     -   65s
  87       0    0 1003.00000    0  573          - 1003.00000      -     -   66s
  88       0    0 1003.00000    0  531          - 1003.00000      -     -   66s
  89       0    0 1003.00000    0  827          - 1003.00000      -     -   73s
  90       0    0 1003.00000    0  796          - 1003.00000      -     -   73s
  91   H   0    0                 9783.0000000 1003.00000  89.7%     -   73s
  92       0    0 1003.00000    0  383 9783.00000 1003.00000  89.7%     -   76s
  93   H   0    0                 6843.0000000 1003.00000  85.3%     -   82s
  94   H   0    0                 6503.0000000 1003.00000  84.6%     -   82s
  95   H   0    0                 6203.0000000 1003.00000  83.8%     -   84s
  96       0    2 1003.00000    0  366 6203.00000 1003.00000  83.8%     -   86s
  97       5    8 1003.00000    3  516 6203.00000 1003.00000  83.8%  1601   92s
  98       8    8 1003.00000    3  462 6203.00000 1003.00000  83.8%  2770   95s
  99      17   14 1003.00000    5  402 6203.00000 1003.00000  83.8%  2181  100s
 100   H  29   26                 5343.0000000 1003.00000  81.2%  1421  105s
 101      38   44 1003.00000    9  289 5343.00000 1003.00000  81.2%  1213  111s
 102      51   55 1003.00000   13  691 5343.00000 1003.00000  81.2%  1178  118s
 103      62   92 1003.00000   14  499 5343.00000 1003.00000  81.2%  1645  131s
 104     104  141 1003.00000   17  531 5343.00000 1003.00000  81.2%  1247  154s
 105     168  205 1003.00000   24  539 5343.00000 1003.00000  81.2%  1202  186s
 106   H 220  205                 2323.0000000 1003.00000  56.8%  1303  186s
 107     242  356 1011.82353   38  555 2323.00000 1003.00000  56.8%  1245  242s
 108   H 248  356                 2303.0000000 1003.00000  56.4%  1260  242s
 109   H 340  356                 1943.0000000 1003.00000  48.4%  1030  242s
 110   H 423  575                 1463.0000000 1003.00000  31.4%   967  317s
 111     708  896 1363.00000  197  235 1463.00000 1003.00000  31.4%   751  394s
 112   *  828  781             308    1363.0000000 1003.00000  26.4%   668  394s
 113    1147 1025 infeasible   28      1363.00000 1003.00000  26.4%   540  450s
 114   H 1150  927                 1103.0000000 1003.00000  9.07%   539  450s
 115    1553 1112     cutoff  219      1103.00000 1003.00000  9.07%   461  495s
 116    2009 1112 1003.00000  416  383 1103.00000 1003.00000  9.07%   391  555s
 117    2011 1113 1003.00000  294   58 1103.00000 1003.00000  9.07%   391  564s
 118    2012 1114 1003.00000   82  481 1103.00000 1003.00000  9.07%   390  574s
 119    2013 1115 1010.64706  336  428 1103.00000 1003.00000  9.07%   390  580s
 120    2014 1115 1003.00000    6  413 1103.00000 1003.00000  9.07%   390  593s
 121    2015 1116 1003.00000  160  532 1103.00000 1003.00000  9.07%   390  600s
 122    2016 1117 1003.00000   40  368 1103.00000 1003.00000  9.07%   390  611s
 123    2017 1117 1003.00000  121  488 1103.00000 1003.00000  9.07%   389  617s
 124    2018 1118 1003.00000   19  488 1103.00000 1003.00000  9.07%   389  627s
 125    2019 1119 1003.00000   87  619 1103.00000 1003.00000  9.07%   389  633s
 126    2020 1119 1005.35294  303  507 1103.00000 1003.00000  9.07%   389  645s
 127    2021 1120 1003.00000   20  560 1103.00000 1003.00000  9.07%   389  652s
 128    2022 1121 1003.00000  181  297 1103.00000 1003.00000  9.07%   388  662s
 129    2023 1121 1003.00000  286  844 1103.00000 1003.00000  9.07%   388  669s
 130    2024 1122 1003.00000  133  530 1103.00000 1003.00000  9.07%   388  681s
 131    2025 1123 1003.00000   50  753 1103.00000 1003.00000  9.07%   388  687s
 132    2026 1123 1003.00000   20  325 1103.00000 1003.00000  9.07%   388  698s
 133   H 2026 1066                 1023.0000000 1003.00000  1.96%   388  698s
 134    2027 1067 1007.70588   73  455 1023.00000 1003.00000  1.96%   387  701s
 135   H 2027 1013                 1003.0000000 1003.00000  0.00%   387  707s
 136
 137   Cutting planes:
 138     Gomory: 47
 139     Cover: 268
 140     Implied bound: 101
 141     Projected implied bound: 10
 142     Clique: 309
 143     MIR: 77
 144     StrongCG: 13
 145     Flow cover: 68
 146     GUB cover: 43
 147     Zero half: 119
 148     RLT: 610
 149     Relax-and-lift: 53
 150     BQP: 129
 151
 152   Explored 2027 nodes (977327 simplex iterations) in 707.77 seconds (973.30 work units)
 153   Thread count was 8 (of 8 available processors)
 154
 155   Solution count 10: 1003 1023 1103 ... 6203
 156
 157   Optimal solution found (tolerance 1.00e-10)
 158   Best objective 1.003000000000e+03, best bound 1.003000000000e+03, gap 0.0000%
 159   Set parameter MIPGap to value 1e-08
 160   Gurobi Optimizer version 10.0.2 build v10.0.2rc0 (win64)
 161
 162   CPU model: 11th Gen Intel(R) Core(TM) i7-11370H @ 3.30GHz, instruction set [SSE2|AVX|AVX2|AVX512]
 163   Thread count: 4 physical cores, 8 logical processors, using up to 8 threads
```

```
Optimize a model with 6640842 rows, 5268955 columns and 47032804 nonzeros
Model fingerprint: 0x6c0b071b
Variable types: 2610523 continuous, 2658432 integer (2648307 binary)
Coefficient statistics:
  Matrix range     [1e-01, 1e+10]
  Objective range  [6e-05, 5e+01]
  Bounds range     [1e+00, 8e+01]
  RHS range        [8e-01, 1e+10]
Warning: Model contains large matrix coefficients
Warning: Model contains large rhs
         Consider reformulating model or setting NumericFocus parameter
         to avoid numerical issues.
Presolve removed 2522 rows and 3952272 columns (presolve time = 5s) ...
Presolve removed 6632912 rows and 5266176 columns (presolve time = 12s) ...
Presolve removed 6634145 rows and 5266755 columns (presolve time = 15s) ...
Presolve removed 6634593 rows and 5266887 columns
Presolve time: 17.45s
Presolved: 6249 rows, 2068 columns, 16772 nonzeros
Variable types: 14 continuous, 2054 integer (1209 binary)

Root simplex log...

Iteration    Objective       Primal Inf.    Dual Inf.      Time
       0    1.2219444e+04   1.139250e+04   0.000000e+00     22s
    2435    8.1882423e+03   0.000000e+00   0.000000e+00     22s

Root relaxation: objective 8.188242e+03, 2435 iterations, 0.05 seconds (0.03 work units)

    Nodes    |    Current Node    |     Objective Bounds      |     Work
 Expl Unexpl |  Obj  Depth IntInf | Incumbent    BestBd   Gap | It/Node Time

     0     0 8188.24233    0   27          - 8188.24233      -     -   22s
H    0     0                 8154.2978865 8188.24233  0.42%     -   22s
H    0     0                 8172.4089977 8188.24233  0.19%     -   22s
H    0     0                 8180.8534421 8188.24233  0.09%     -   22s
     0     0 8183.38122    0    9 8180.85344 8183.38122  0.03%     -   22s
     0     0 8183.38122    0    7 8180.85344 8183.38122  0.03%     -   22s
     0     0 8183.24233    0    9 8180.85344 8183.24233  0.03%     -   22s
     0     0 8182.46455    0   11 8180.85344 8182.46455  0.02%     -   22s
     0     0     cutoff    0      8180.85344 8180.85344  0.00%     -   22s

Cutting planes:
  Gomory: 1
  Cover: 1
  Implied bound: 3
  Clique: 4
  MIR: 4
  StrongCG: 1
  Flow cover: 1
  Zero half: 2
  RLT: 4
  Relax-and-lift: 1

Explored 1 nodes (4212 simplex iterations) in 23.58 seconds (19.88 work units)
Thread count was 8 (of 8 available processors)

Solution count 3: 8180.85 8172.41 8154.3

Optimal solution found (tolerance 1.00e-08)
Best objective 8.180853442100e+03, best bound 8.180853442100e+03, gap 0.0000%
SP is solved
SP's optimal solution is'□8180

  Itr = 0
Collect_LB =   [1003.0]
Collect_UB =   [17364.706884199055]
Collect_Hua =   [0.0]
Collect_SPObjVal =   [8180.8534420995275]
Collect_MPObjValNHua =   [1003.0]


Time: 1193.000000




Set parameter TimeLimit to value 10800
Set parameter MIPGap to value 0.05
Gurobi Optimizer version 10.0.2 build v10.0.2rc0 (win64)

CPU model: 11th Gen Intel(R) Core(TM) i7-11370H @ 3.30GHz, instruction set [SSE2|AVX|AVX2|AVX512]
Thread count: 4 physical cores, 8 logical processors, using up to 8 threads
```

```
Optimize a model with 2291438 rows, 765481 columns and 6888129 nonzeros
Model fingerprint: 0x89d7b0ed
Variable types: 1 continuous, 765480 integer (746475 binary)
Coefficient statistics:
  Matrix range     [1e-01, 1e+10]
  Objective range  [1e+00, 2e+01]
  Bounds range     [1e+00, 1e+00]
  RHS range        [1e+00, 2e+10]
Warning: Model contains large matrix coefficients
Warning: Model contains large rhs
         Consider reformulating model or setting NumericFocus parameter
         to avoid numerical issues.
Presolve removed 1653048 rows and 706597 columns (presolve time = 5s) ...
Presolve removed 1669498 rows and 707465 columns (presolve time = 10s) ...
Presolve removed 1685364 rows and 708950 columns (presolve time = 15s) ...
Presolve removed 1728572 rows and 711395 columns (presolve time = 20s) ...
Presolve removed 1728572 rows and 711395 columns (presolve time = 50s) ...
Presolve removed 1845381 rows and 730094 columns (presolve time = 50s) ...
Presolve removed 1893431 rows and 730517 columns
Presolve time: 52.75s
Presolved: 398007 rows, 34964 columns, 1198053 nonzeros
Variable types: 1 continuous, 34963 integer (29906 binary)
Root relaxation presolved: 34964 rows, 432971 columns, 1233017 nonzeros

Deterministic concurrent LP optimizer: primal simplex, dual simplex, and barrier
Showing barrier log only...

Root relaxation presolved: 34964 rows, 432971 columns, 1233017 nonzeros

Root barrier log...

Elapsed ordering time = 5s
Elapsed ordering time = 6s
Elapsed ordering time = 8s
Ordering time: 9.57s

Barrier statistics:
 Dense cols : 31
 Free vars  : 739
 AA' NZ     : 1.325e+06
 Factor NZ  : 6.463e+07 (roughly 700 MB of memory)
 Factor Ops : 3.155e+11 (roughly 18 seconds per iteration)
 Threads    : 1

                 Objective                Residual
Iter       Primal          Dual         Primal    Dual     Compl     Time
   0  -1.09638604e+08  6.57721024e+04  2.00e+04 3.47e+03  1.17e+05    78s
   1  -8.86845275e+07  1.65245536e+05  6.52e+03 5.19e+03  7.46e+04   102s

Barrier performed 1 iterations in 101.92 seconds (110.64 work units)
Barrier solve interrupted - model solved by another algorithm

Concurrent spin time: 17.81s (can be avoided by choosing Method=3)

Solved with primal simplex

Root simplex log...

Iteration    Objective       Primal Inf.    Dual Inf.      Time
   45215    9.1898534e+03   0.000000e+00   0.000000e+00    102s

Root relaxation: objective 9.189853e+03, 45215 iterations, 46.96 seconds (31.06 work units)
Total elapsed time = 131.76s
Total elapsed time = 147.03s
Total elapsed time = 156.56s
Total elapsed time = 163.92s

     Nodes    |    Current Node    |     Objective Bounds      |     Work
  Expl Unexpl |  Obj  Depth IntInf | Incumbent    BestBd   Gap | It/Node Time

     0     0 9189.85344    0  617          - 9189.85344      -     -  172s
     0     0 9189.85344    0  624          - 9189.85344      -     -  180s
     0     0 9189.85344    0  583          - 9189.85344      -     -  182s
     0     0 9189.85344    0  582          - 9189.85344      -     -  183s
     0     0 9189.85344    0 1312          - 9189.85344      -     -  260s
     0     0 9189.85344    0 1334          - 9189.85344      -     -  293s
     0     0 9189.85344    0 1210          - 9189.85344      -     -  302s
     0     0 9189.85344    0 1074          - 9189.85344      -     -  310s
     0     0 9189.85344    0  646          - 9189.85344      -     -  468s
     0     0 9189.85344    0  645          - 9189.85344      -     -  469s
     0     0 9189.85344    0 1434          - 9189.85344      -     -  570s
     0     0 9189.85344    0 1296          - 9189.85344      -     -  587s
     0     0 9189.85344    0 1251          - 9189.85344      -     -  589s
```

```
332      0    0 9189.85344    0 1375         - 9189.85344      -     -  611s
333      0    0 9189.85344    0 1290         - 9189.85344      -     -  621s
334      0    0 9189.85344    0 1304         - 9189.85344      -     -  621s
335      0    0 9189.85344    0  910         - 9189.85344      -     -  792s
336      0    0 9189.85344    0  917         - 9189.85344      -     -  797s
337      0    0 9189.85344    0 1045         - 9189.85344      -     -  866s
338      0    0 9189.85344    0 1050         - 9189.85344      -     -  868s
339      0    0 9189.85344    0 1115         - 9189.85344      -     - 1097s
340      0    0 9189.85344    0 1066         - 9189.85344      -     - 1129s
341      0    0 9189.85344    0 1044         - 9189.85344      -     - 1130s
342      0    0 9189.85344    0 1233         - 9189.85344      -     - 1154s
343      0    0 9189.85344    0 1207         - 9189.85344      -     - 1156s
344      0    0 9189.85344    0 1207         - 9189.85344      -     - 1156s
345      0    0 9189.85344    0 1245         - 9189.85344      -     - 1291s
346      0    0 9189.85344    0 1185         - 9189.85344      -     - 1324s
347      0    0 9189.85344    0 1175         - 9189.85344      -     - 1325s
348      0    0 9189.85344    0 1175         - 9189.85344      -     - 1325s
349      0    0 9189.85344    0 1231         - 9189.85344      -     - 1348s
350      0    0 9189.85344    0 1210         - 9189.85344      -     - 1349s
351      0    0 9189.85344    0 1097         - 9189.85344      -     - 1430s
352      0    0 9189.85344    0 1061         - 9189.85344      -     - 1432s
353      0    0 9189.85344    0 1060         - 9189.85344      -     - 1460s
354      0    2 9189.85344    0 1060         - 9189.85344      -     - 1658s
355      1    5 9189.85344    1 1259         - 9189.85344      - 62471 1702s
356      3    8 9189.85344    2 1623         - 9189.85344      - 40595 1789s
357      7   12 9189.85344    3 1709         - 9189.85344      - 34405 1903s
358     11   16 9189.85344    4 1596         - 9189.85344      - 32591 2008s
359     15   20 9189.85344    5 2843         - 9189.85344      - 34709 2288s
360     19   24 9189.85344    5 1908         - 9189.85344      - 29597 2366s
361     23   28 9189.85344    6 1757         - 9189.85344      - 28949 2446s
362     27   32 9189.85344    6 1632         - 9189.85344      - 27097 2894s
363     31   36 9189.85344    7 1696         - 9189.85344      - 29009 2977s
364     35   41 9189.85344    7 1430         - 9189.85344      - 29215 3050s
365     40   70 9189.85344    8 1416         - 9189.85344      - 27122 3334s
366     75  142 9189.85344   13 1673         - 9189.85344      - 19999 3727s
367    152  266 9189.85344   27 1454         - 9189.85344      - 13924 4078s
368    290  370 9229.85344   47 2129         - 9189.85344      -  9407 4343s
369    470  398 9789.85344  108 2096         - 9189.85344      -  7103 4554s
370    510  497 9189.85344    5 1904         - 9189.85344      -  7332 4796s
371    619  613 9189.85344    5 1523         - 9189.85344      -  6781 5025s
372    747  806 9229.85344   10 2071         - 9189.85344      -  6112 5214s
373    961 1043 9229.85344   10 1758         - 9189.85344      -  5101 5355s
374   1203 1295 9268.56167   10 2981         - 9189.85344      -  4362 5483s
375   1473 1465 9292.55742   13 1909         - 9189.85344      -  3742 5588s
376   1674 1653 9505.81072   12 2867         - 9189.85344      -  3398 5695s
377   1864 1654 9709.85344  158 1074         - 9189.85344      -  3142 6370s
378   1866 1655 9589.85344  128  875         - 9189.85344      -  3139 6663s
379   1867 1656 9189.85344   26 1539         - 9189.85344      -  3137 6901s
380   1868 1657 10109.8534   45 1930         - 9189.85344      -  3135 7153s
381   1869 1657 9589.85344   37 1268         - 9189.85344      -  3134 7864s
382   1870 1658 10329.8534   87 1290         - 9189.85344      -  3132 8051s
383   1871 1659 9609.85344  185 1260         - 9189.85344      -  3130 8673s
384   1872 1659 10245.2381   88 1569         - 9189.85344      -  3129 8952s
385   1873 1660 9489.85344   11 1205         - 9189.85344      -  3127 9516s
386   1874 1661 10529.8534  104 1598         - 9189.85344      -  3125 9892s
387   1875 1661 9929.85344  337 1140         - 9189.85344      -  3124 10447s
388   1876 1662 9229.85344   18 1556         - 9189.85344      -  3122 10719s
389
390  Cutting planes:
391    Gomory: 5
392    Cover: 1205
393    Implied bound: 343
394    Projected implied bound: 104
395    Clique: 363
396    MIR: 615
397    StrongCG: 140
398    Flow cover: 1198
399    GUB cover: 1809
400    Zero half: 105
401    RLT: 127
402    Relax-and-lift: 227
403    BQP: 22
404    PSD: 1
405
406  Explored 1876 nodes (7383074 simplex iterations) in 10800.38 seconds (31929.99 work units)
407  Thread count was 8 (of 8 available processors)
408
409  Solution count 0
410
411  Time limit reached
412  Best objective -, best bound 9.189853442100e+03, gap -
413  Traceback (most recent call last):
414    File "<input>", line 1, in <module>
415    File "D:\Python\Pycharm\setroute\PyCharm Community Edition 2021.2.3\plugins\python-ce\helpers\pydev\_pydev_bundle\pydev_umd.py", line 198, in runfile
```

```
  pydev_imports.execfile(filename, global_vars, local_vars)  # execute the script
 File "D:\Python\Pycharm\setroute\PyCharm Community Edition 2021.2.3\plugins\python-ce\helpers\pydev\_pydev_imps\_pydev_execfile.py", line 18, in execfile
  exec(compile(contents+"\n", file, 'exec'), glob, loc)
 File "E:/1 □□□□/3 □□□□□/1 □□□□□□/1 □□□□□□□□/1_□□□□□□_□□□□/1_LW _□□□□/4 □□□□/3 python_code/9 Code for this paper/main_RO_CCG.py", line 1366, in <module>
  HuaValG = Hua.x
 File "src\gurobipy\var.pxi", line 125, in gurobipy.Var.__getattr__
 File "src\gurobipy\var.pxi", line 153, in gurobipy.Var.getAttr
 File "src\gurobipy\attrutil.pxi", line 100, in gurobipy.__getattr
AttributeError: Unable to retrieve attribute 'x'
```