Analysis2Overturning

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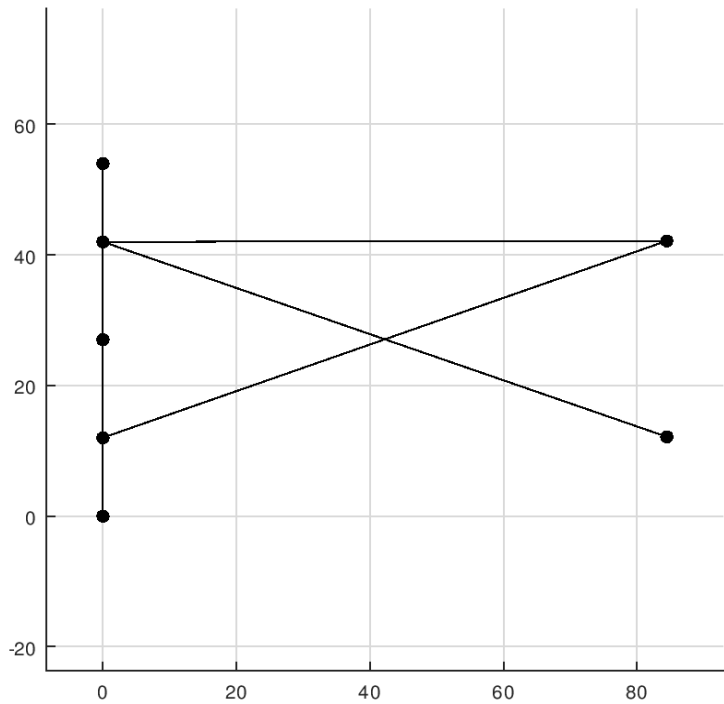
Column1
****
GEOMETRY
****

Nodal Coordinates:
(Node No. - X - Y - Z)

NODES =
1.00000   0.00000   0.00000
2.00000   0.00000 12.00000
3.00000   0.00000 27.00000
4.00000   0.00000 42.00000
5.00000   0.00000 54.00000
6.00000 84.46000 12.14660
7.00000 84.46000 42.14660

Boundary Conditions: 1 = Restrained, 0 = Free

(Node No. - Tx - Ty - Rz)

BOUNDS =

```
 1  1  1  0
 6  1  1  1
 7  1  1  1
```

Element Information:

(Ele No. - iNode - jNode - Member Type - E - A - I)

ELES =

```
   1    1    2    0   29000   9999  999999
   2    2    3    0   29000   9999  999999
   3    3    4    0   29000   9999  999999
   4    4    5    0   29000   9999  999999
   5    4    7    0   29000      5     50
   6    4    6    0   29000      5     50
   7    2    7    0   29000      5     50
```

Load Information:

(Node No. - Fx - Fy - Mz)

LOADS =

```
   5    0    0  720
```

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plotFile = ../../1. OUTPUT/Analysis2Overturning.png

ans =

```
  -8.4460   92.9060  -23.6760   77.6760
```

****

ANALYSIS

```
**********************************
```

kff =

Columns 1 through 5:

9666657000.00000	1208332125.00000	0.00000	4833328500.00000	0.00000
1208332125.00000	304501132.39096	504.26323	434999201.34761	-103111008.00000
0.00000	504.26323	43495854.11402	1018.82405	0.00000
4833328500.00000	434999201.34761	1018.82405	17400047275.17513	773332560.00000
0.00000	-103111008.00000	0.00000	773332560.00000	206222016.00000
0.00000	0.00000	-19331400.00000	0.00000	0.00000
0.00000	-773332560.00000	0.00000	3866662800.00000	0.00000
0.00000	0.00000	0.00000	0.00000	-103111008.00000
0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	-773332560.00000
0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	0.00000	0.00000	0.00000	0.00000

Columns 6 through 10:

0.00000	0.00000	0.00000	0.00000	0.00000
0.00000	-773332560.00000	0.00000	0.00000	0.00000
-19331400.00000	0.00000	0.00000	0.00000	0.00000
0.00000	3866662800.00000	0.00000	0.00000	0.00000
0.00000	0.00000	-103111008.00000	0.00000	-773332560.00000
38662800.00000	0.00000	0.00000	-19331400.00000	0.00000
0.00000	15466651200.00000	773332560.00000	0.00000	3866662800.00000
0.00000	773332560.00000	304502853.85281	-498.05544	-434999205.81648
-19331400.00000	0.00000	-498.05544	43495880.16908	2241.76973
0.00000	3866662800.00000	-434999205.81648	2241.76973	17400116017.48470
0.00000	0.00000	-201388687.50000	0.00000	1208332125.00000
0.00000	0.00000	0.00000	-24164250.00000	0.00000
0.00000	0.00000	-1208332125.00000	0.00000	4833328500.00000

Columns 11 through 13:

0.00000	0.00000	0.00000
0.00000	0.00000	0.00000
0.00000	0.00000	0.00000
0.00000	0.00000	0.00000
0.00000	0.00000	0.00000
0.00000	0.00000	0.00000
0.00000	0.00000	0.00000
-201388687.50000	0.00000	-1208332125.00000

0.00000	-24164250.00000	0.00000
1208332125.00000	0.00000	4833328500.00000
201388687.50000	0.00000	1208332125.00000
0.00000	24164250.00000	0.00000
1208332125.00000	0.00000	9666657000.00000

Number of dof: 13

Number of loads: 1

LOADS =

5   0   0   720

deg = 11

deg = 12

deg = 13

P =

0

0

0

0

0

0

0

0

0

0

0

0

720

uf =

0.000120731845

-0.001448962108

-0.000000090769

0.000120776836

-0.003261800816

-0.000000235663

0.000120955675

-0.005078252867

-0.000000380557

0.000121258615

-0.006535143835

-0.000000380557

0.000121556546

```
************************************

Post Process

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Nodal Displacements:
(Node No. - Tx - Ty - Rz)
----------------------------------------


NodalDisp =

  1.00000   0.00000   0.00000   0.00012
  2.00000  -0.00145  -0.00000   0.00012
  3.00000  -0.00326  -0.00000   0.00012
  4.00000  -0.00508  -0.00000   0.00012
  5.00000  -0.00654  -0.00000   0.00012
  6.00000   0.00000   0.00000   0.00000
  7.00000   0.00000   0.00000   0.00000


----------------------------------------
----------------------------------------
Global Member Forces:
(Element No. - iFx - iFy - iMz - jFx - jFy - jMz)
----------------------------------------


GlobalForces =

  1.0000e+00  -1.8121e+01   2.1934e+00   2.6776e-09   1.8121e+01  -2.1934e+00   2.1745e+02
  2.0000e+00  -1.5995e+01   2.8010e+00  -2.2579e+02   1.5995e+01  -2.8010e+00   4.6572e+02
  3.0000e+00  -1.5995e+01   2.8010e+00  -4.6572e+02   1.5995e+01  -2.8010e+00   7.0565e+02
  4.0000e+00  -7.8580e-10  -4.2633e-14  -7.2000e+02   7.8580e-10   4.2633e-14   7.2000e+02
  5.0000e+00  -8.7185e+00   1.3300e-01   8.3373e+00   8.7185e+00  -1.3300e-01   4.1738e+00
  6.0000e+00  -7.2767e+00   2.6680e+00   6.0158e+00   7.2767e+00  -2.6680e+00   2.0903e+00
  7.0000e+00  -2.1260e+00  -6.0763e-01   8.3381e+00   2.1260e+00   6.0763e-01   4.4325e+00


----------------------------------------
----------------------------------------
Local Member Forces:
(Element No. - iFx - iFy - iMz - jFx - jFy - jMz)
----------------------------------------


LocalForces =

  1.0000e+00   2.1934e+00   1.8121e+01   2.6776e-09  -2.1934e+00  -1.8121e+01   2.1745e+02
  2.0000e+00   2.8010e+00   1.5995e+01  -2.2579e+02  -2.8010e+00  -1.5995e+01   4.6572e+02
  3.0000e+00   2.8010e+00   1.5995e+01  -4.6572e+02  -2.8010e+00  -1.5995e+01   7.0565e+02
  4.0000e+00  -4.2633e-14   7.8580e-10  -7.2000e+02   4.2633e-14  -7.8580e-10   7.2000e+02
```

```
 5.0000e+00  -8.7183e+00  1.4813e-01  8.3373e+00  8.7183e+00  -1.4813e-01  4.1738e+00
 6.0000e+00  -7.7498e+00  9.0490e-02  6.0158e+00  7.7498e+00  -9.0490e-02  2.0903e+00
 7.0000e+00  -2.2065e+00  1.4240e-01  8.3381e+00  2.2065e+00  -1.4240e-01  4.4325e+00
```


Nodal Support Reactions:
(Node No. - Fx - Fy - Mz)

Support =

```
 1.00000  -18.12114   2.19337   0.00000
 2.00000    0.00000   0.00000   0.00000
 3.00000    0.00000   0.00000   0.00000
 4.00000    0.00000   0.00000   0.00000
 5.00000    0.00000   0.00000   0.00000
 6.00000    7.27666  -2.66800   2.09034
 7.00000   10.84447   0.47463   8.60625
```

sumFx = -9.4431e-12
sumFy = -5.2180e-15
sumMz = 10.697