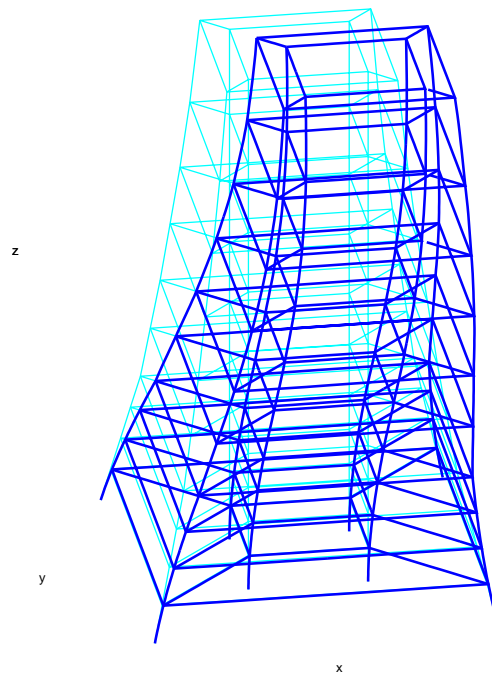
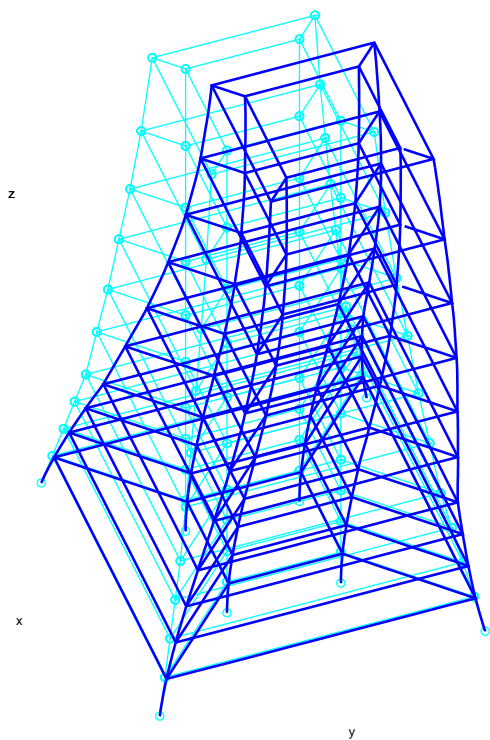


Buckling of a Tower under Gravity Loads – CE 131L. Matrix Structural Analysis – Duke University – H.P. Gavin

$F_z = 10$ MN at each joint, $D_{top} = 53.5$ mm, $f_1 = 0.106$ Hz

Buckling Analysis of a Slender Tower Under Self-Weight N mm tonne s
analysis file: tower.3dd deflection exaggeration: 100.0 load case 1 of 1

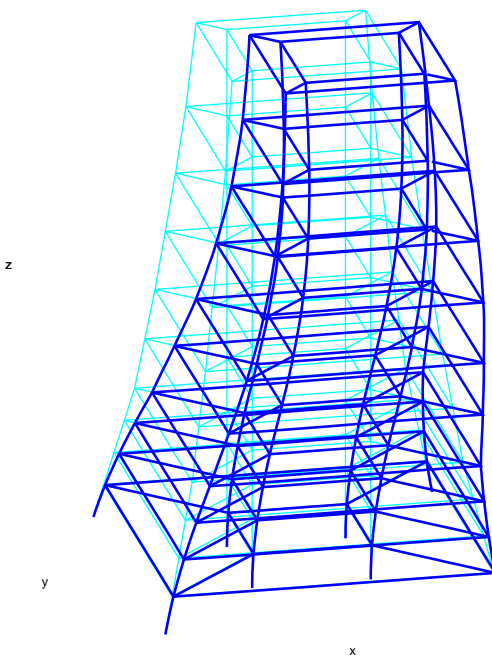
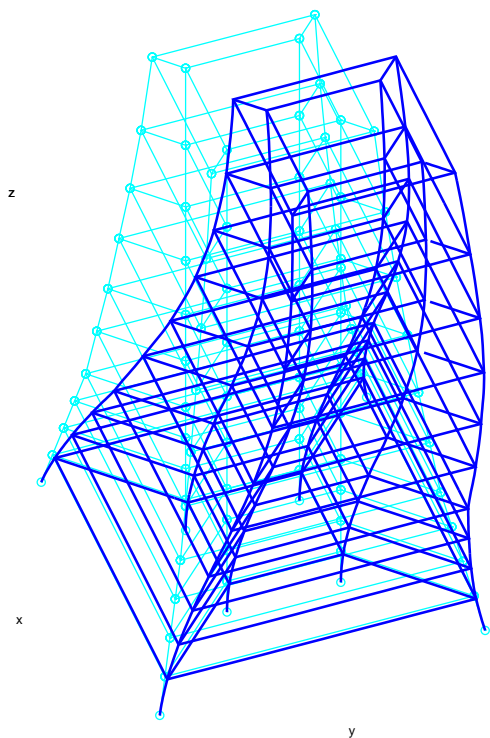
tower.3dd mode 1 0.106202 Hz



$F_z = 20$ MN at each joint, $D_{top} = 73.0$ mm, $f_1 = 0.075$ Hz

Buckling Analysis of a Slender Tower Under Self-Weight N mm tonne s
analysis file: tower.3dd deflection exaggeration: 100.0 load case 1 of 1

tower.3dd mode 1 0.087103 Hz



$F_z = 30 \text{ MN}$ at each joint, $D_{top} = 249.9 \text{ mm}$, $f_1 = 0.030 \text{ Hz}$

Buckling Analysis of a Slender Tower Under Self-Weight N mm tonne s
analysis file: tower.3dd deflection exaggeration: 100.0 load case 1 of 1

tower.3dd mode 1 0.030127 Hz

