STAGS 360-degree model

This mode shape is used as a "trigger" (Wimp=0.001 inch) for nonlinear collapse.
STAGS nonlinear buckling mode 1, pcr= 1.1379 x 460 psi
step 10 eigenvector deformed geometry
nonlinear buckling of isogrid-stiffened perfect shell, optimized with very tiny mode 1 and 2 imperfections

Θ x -35.84
Θ y -13.14
Θ z 35.63

Fig. 124 Nonlinear bifurcation buckling mode of the optimized "**perfect**" **isogrid-stiffened** equivalent ellipsoidal shell loaded by the external design pressure, p = 460 psi. This mode is used as a "trigger" non-axisymmetric imperfection shape (very small amplitude: Wimp = 0.001 inch) to obtain nonlinear non-axisymmetric collapse of the shell. The nonlinear non-axisymmetric elastic load-deflection curve is shown as the second-to-last trace (diamonds with internal cross) in the previous figure. This figure is analogous to Figs. 85 and 110.