



STAGS "crude" 180-degree "soccerball" model

axisymmetric mode 2,  $p_{cr}(\text{STAGS}) = 3.1603 \times 460 = 1453.7$  psi; BIGBOSOR4 gets 1466.5 psi

This is the thick-apex shell optimized with Wimp=0.2 inch.

shell is optimized with lower bound of thickness,  $t(\text{apex}) = 0.6$  inch

linear buckling of perfect unstiffened shell; thick apex:  $t = 0.61996$  in Segment 1 of Fig. 2

$\Theta_x$  -35.84  
 $\Theta_y$  -13.14  
 $\Theta_z$  35.63

Fig. 234 Linear buckling mode from STAGS that corresponds to the third eigenvalue for the **optimized unstiffened equivalent ellipsoidal shell with the thick apex with  $t(\text{apex}) = 0.61996$  inch; the optimum design is listed in Table 93.** Compare this axisymmetric buckling mode from the 180-degree "soccerball" STAGS model with the analogous linear axisymmetric buckling mode from the 360-degree STAGS model (Fig. 151) of the design listed in Table 78. Also compare this mode with the axisymmetric **mode 2** (Fig. 230) determined by BIGBOSOR4 for the design listed in Table 93.