

Fig. 6 Fundamental linear bifurcation buckling mode of **the optimized isogrid-stiffened equivalent ellipsoidal shell** according to the STAGS program. The STAGS finite element model is shown in Fig. a1 of the appendix. Compare with the BIGBOSOR4 prediction in Fig. 4. The axisymmetric buckling mode analogous to this one but computed by BIGBOSOR4 (Fig. 4) is what is called in GENOPT jargon "mode 1". Plus and minus versions of this STAGS linear bifurcation buckling mode are used as initial imperfection shapes in STAGS computations of the local skin and stiffener stresses and buckling load factors, collapse loads, and general nonlinear bifurcation buckling load factors of the optimized isogrid-stiffened shell. Compare with the 10-degree "slice" model in Fig. 36. Compare with the 180-degree STAGS "soccerball" model in Fig. 257.