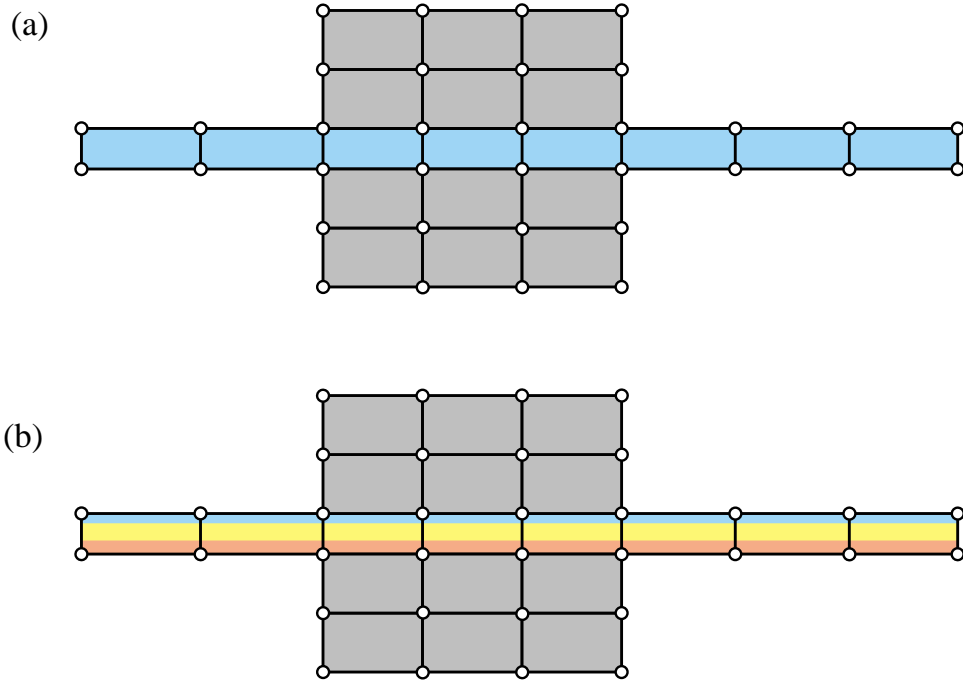


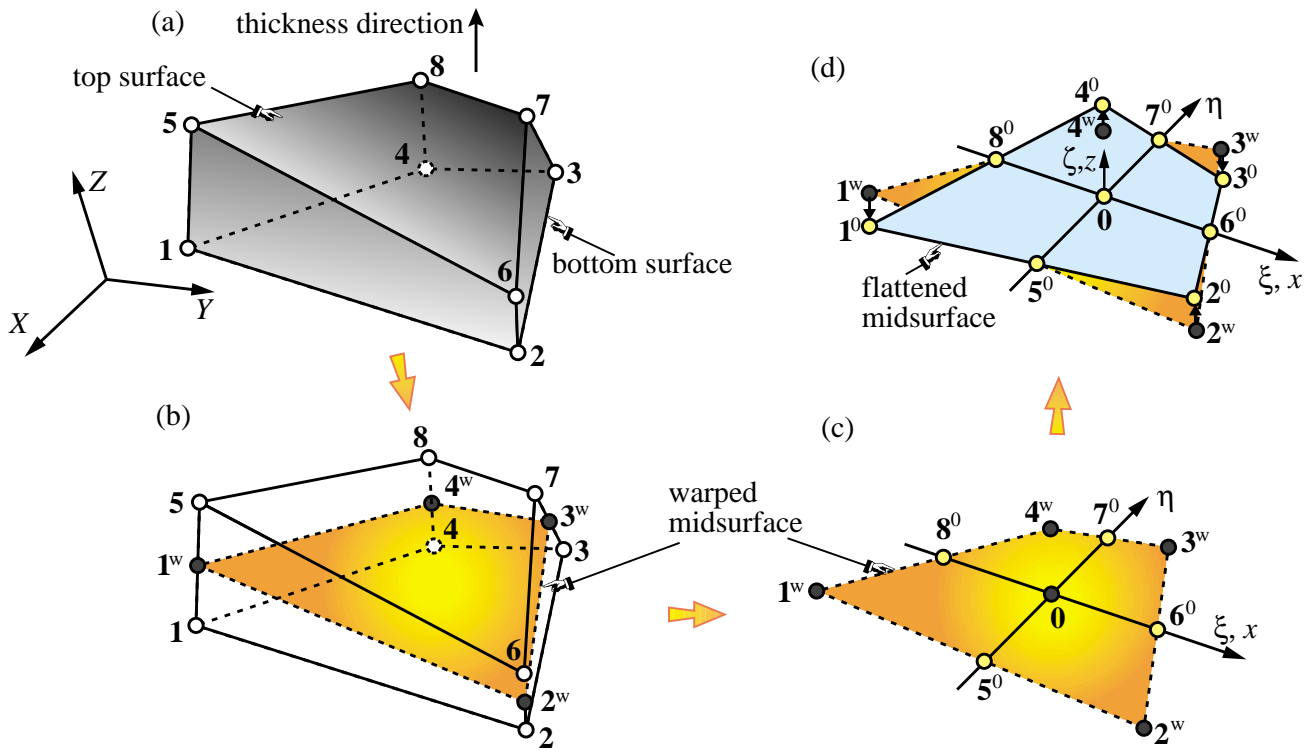
32

A Solid Shell Element

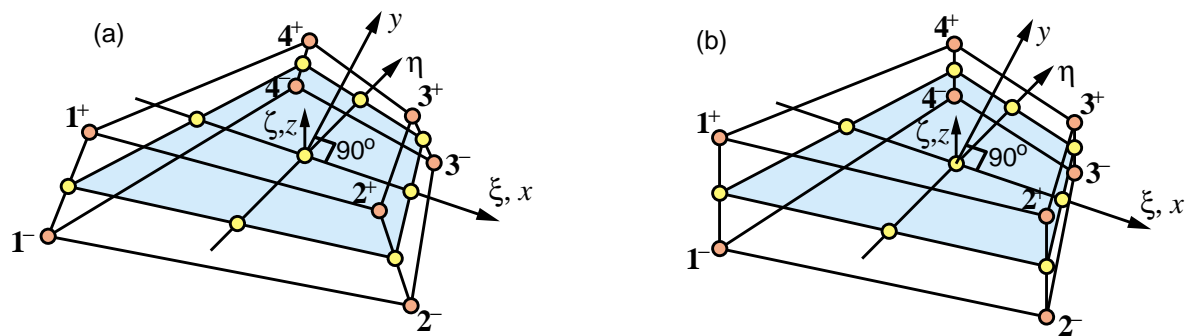
Where to Use Solid Shell Elements



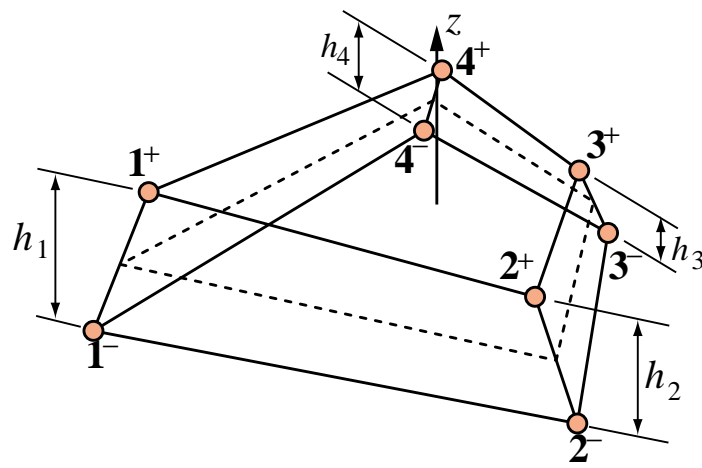
SS8 Solid Shell Element Geometry



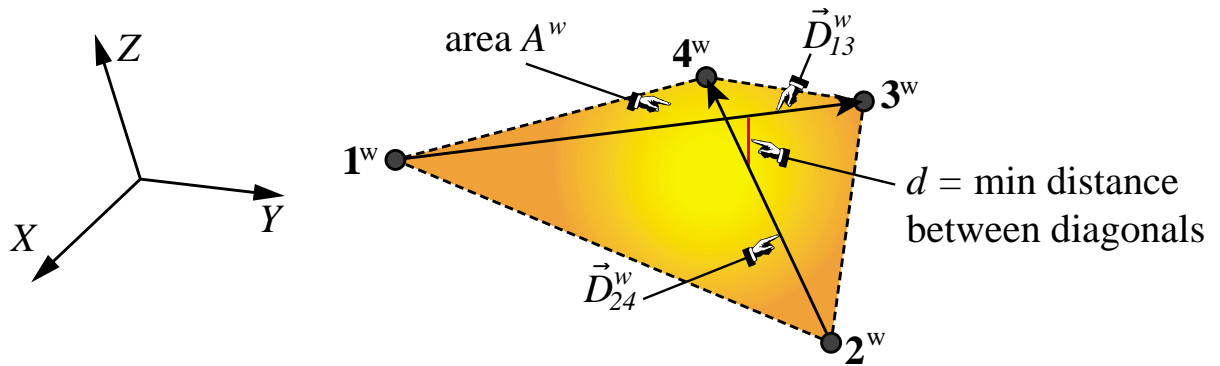
SS8 Flattening



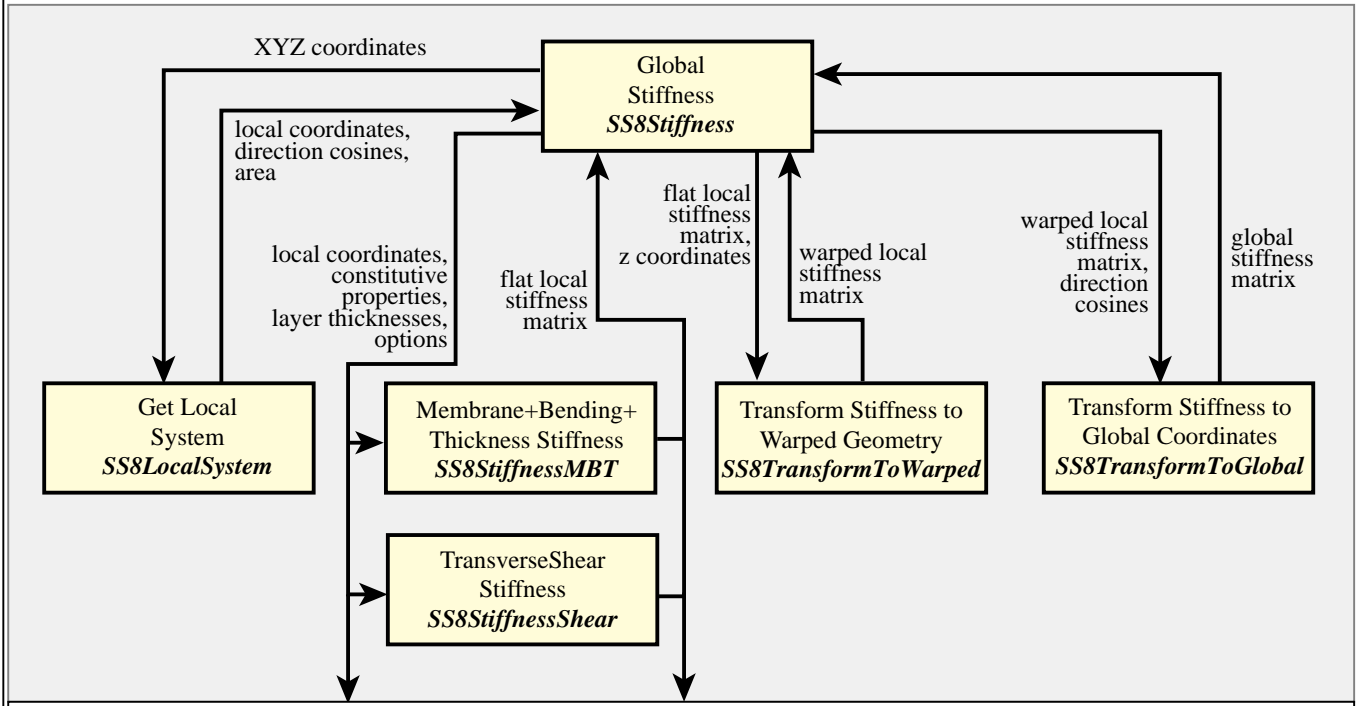
Thickness Tapered SS8



Midsurface Warping Measure

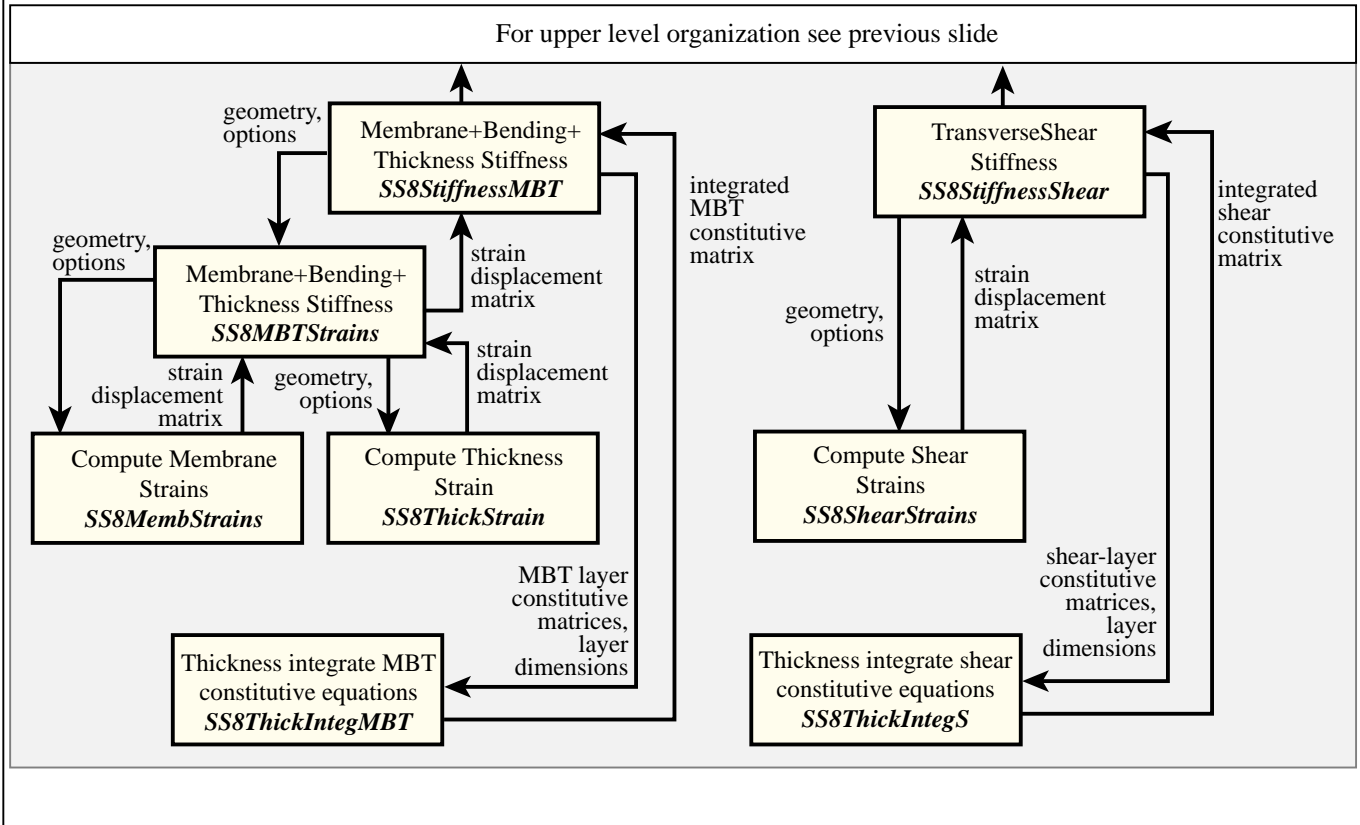


Organization of Top Level Stiffness Computation

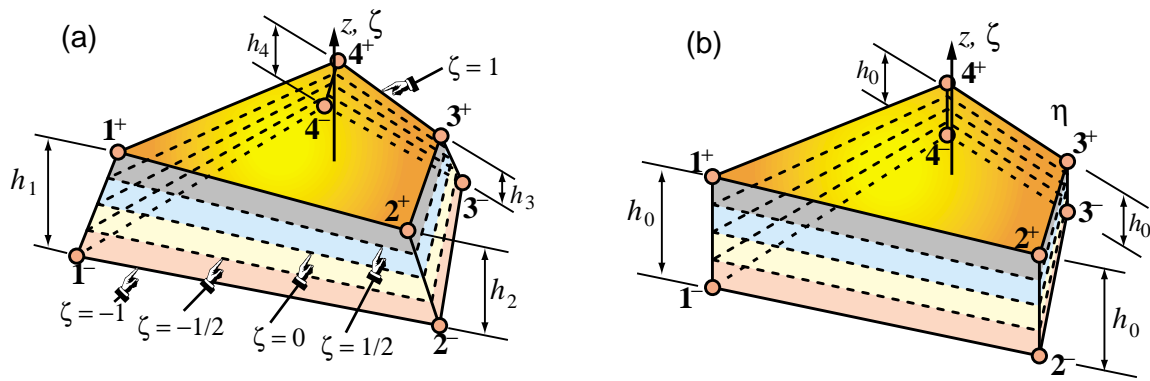


For lower level organization see next slide

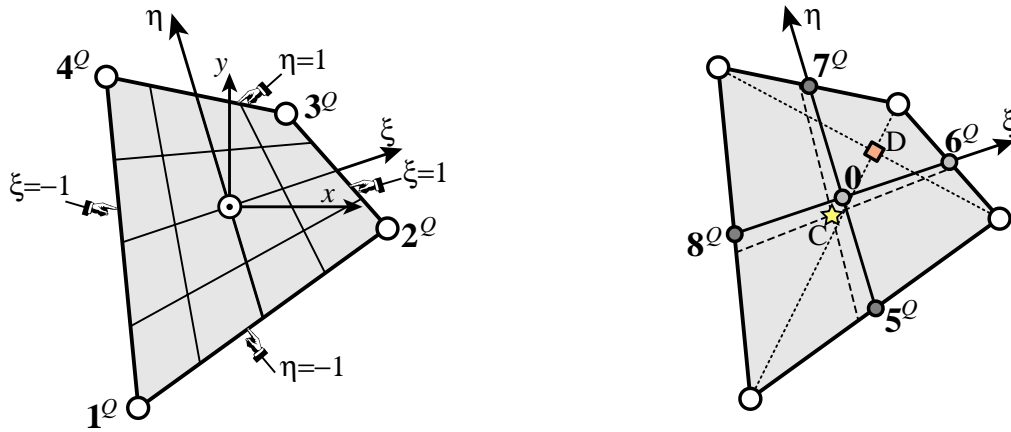
Organization of Lower Level Stiffness Computation



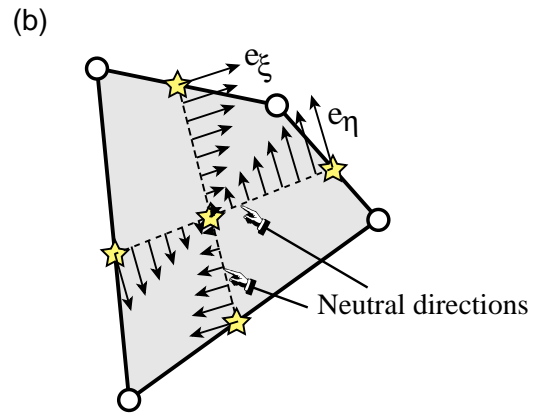
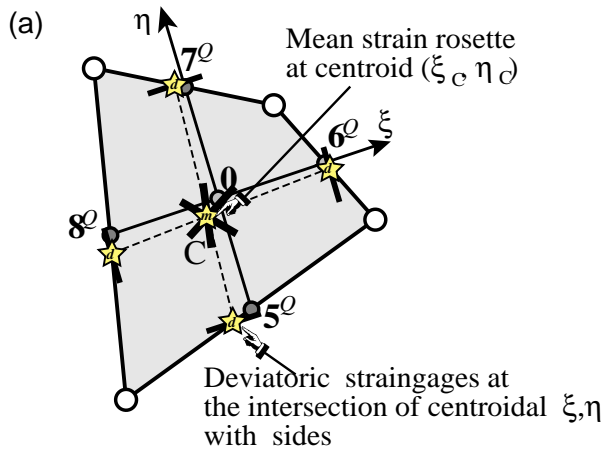
Composite Wall Construction



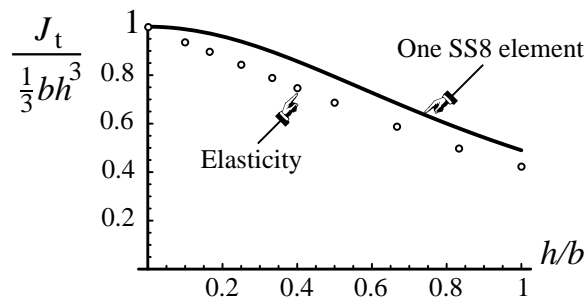
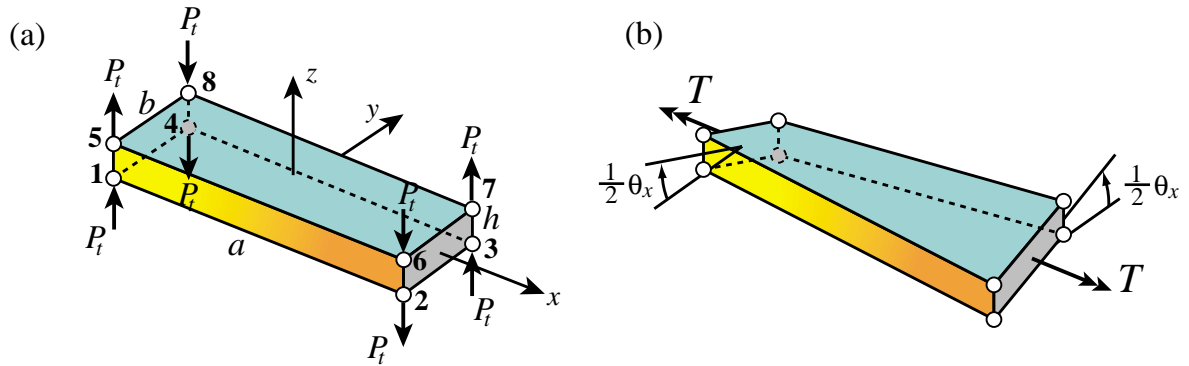
Membrane Field: Midsurface Geometry



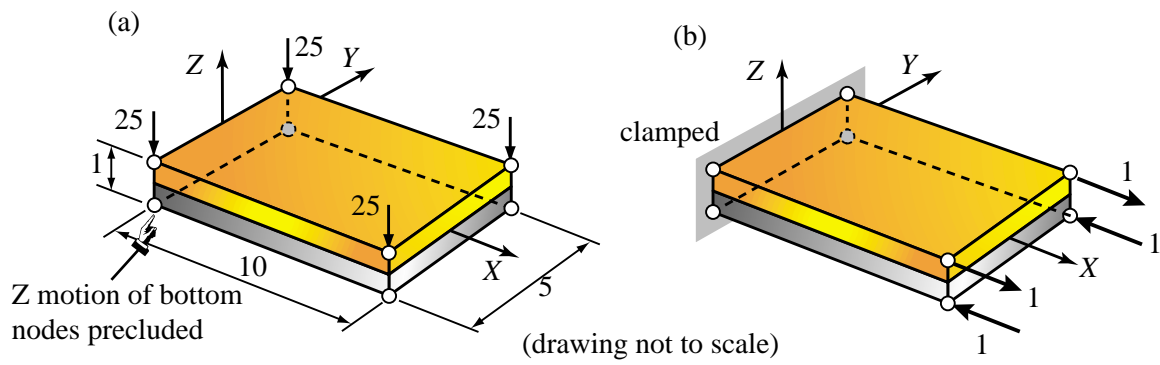
Membrane Field: Assumed Strain Modes



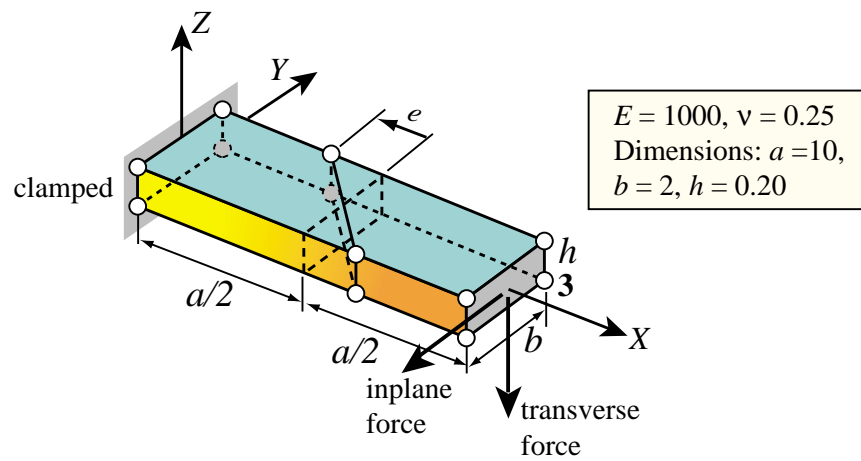
Torsion Benchmark



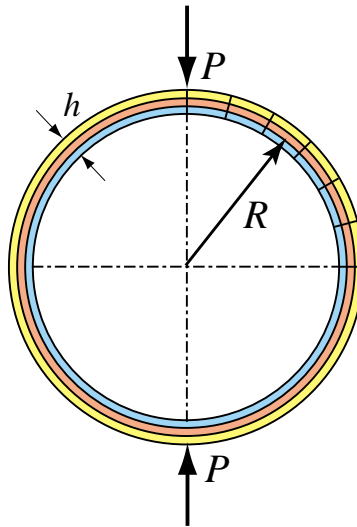
Flat Composite Plate Benchmark



Cantilever Distortion Benchmarks

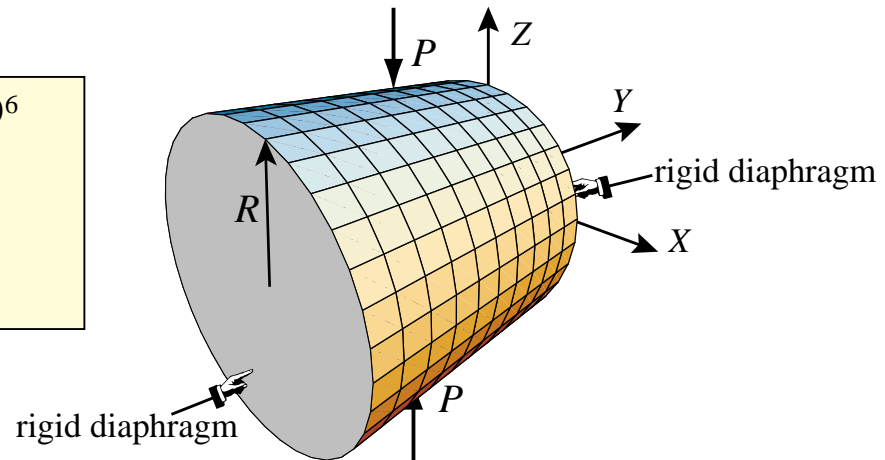


Thin Composite Ring Benchmark

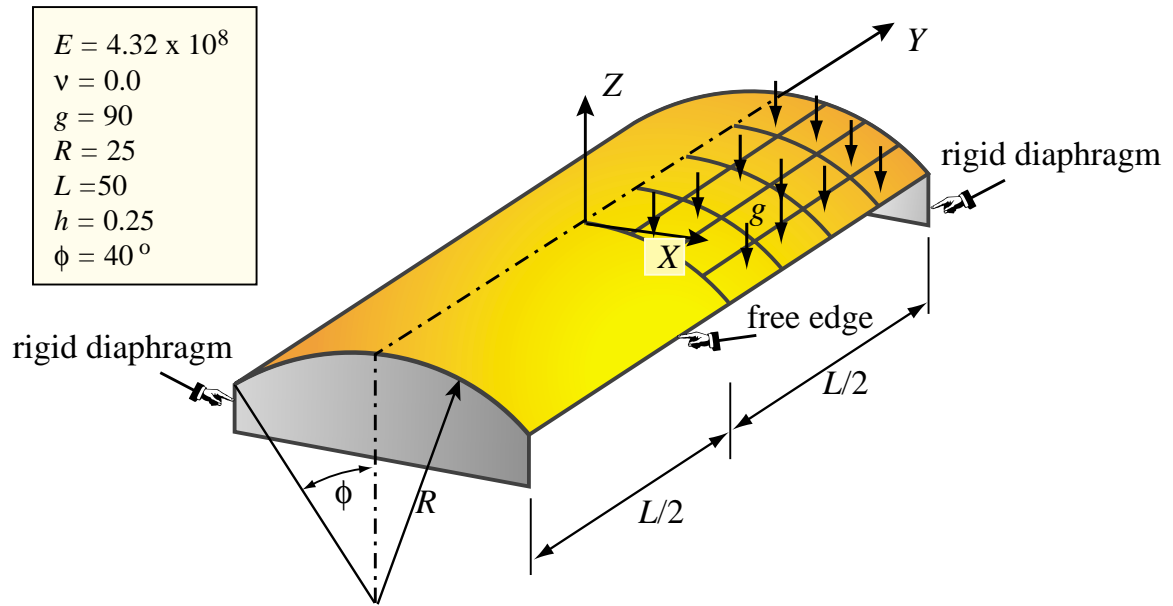


Pinched Cylinder Benchmark

$E = 3 \times 10^6$
 $\nu = 0.3$
 $R = 300$
 $L = 600$
 $h = 3$
 $P = 1$

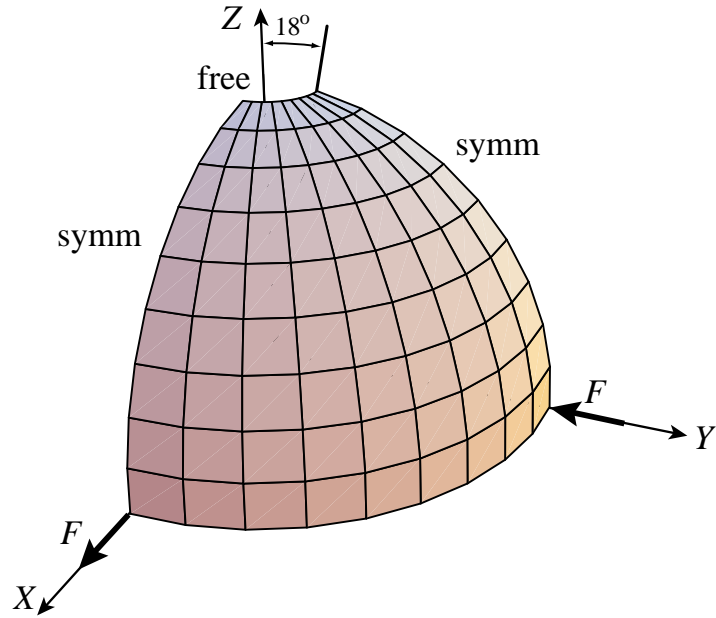


Scordelis-Lo Roof Benchmark



Pinched Sphere Benchmark

$E = 6.825 \times 10^7$
 $\nu = 0.3$
 $R = 10$
 $h = 0.04$
 $F = 1$



Pre-Twisted Beam Benchmark

