



# Domber Technical Work

- I specialize in the mechanics and dynamics of precise structures
  - Nanometer level precision for imaging
- Ph.D. “Plastic Behavior of Polycrystalline Copper at Optical Scales of Deformation”
  - Material nonlinearities as applied to the design and stability of large optical deployable structures
  - In particular, the validity of applying macroscopic constitutive equations at a microscopic scale to predict the flatness of deployed primaries for large aperture telescopes
- I still get to apply this in my work at Ball Aerospace & Technologies Corp. on the Membrane Optical Imager (for) Real-time Exploitation (MOIRE) program
  - Using large, lightweight apertures to provide persistent surveillance from geostationary orbit
  - 10 – 20 m membrane aperture with 160 ft deployed baseline and first mode of 0.1 Hz

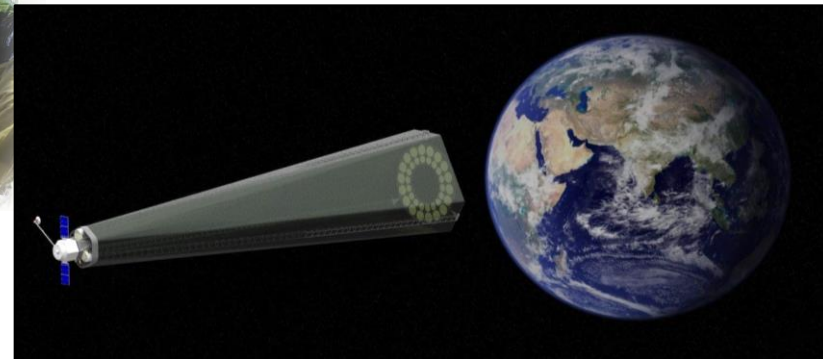
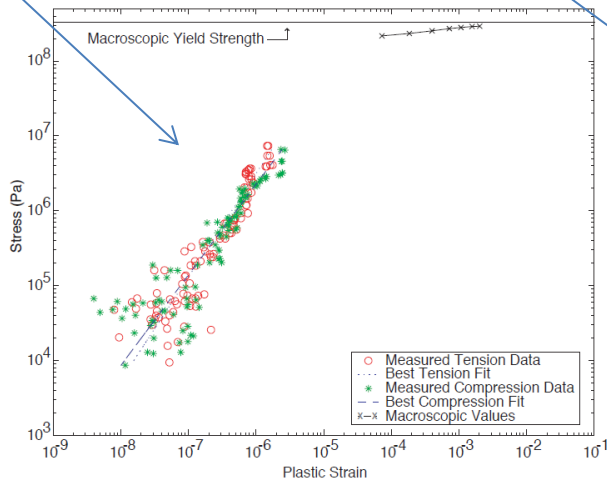


Figure 5-8: Plastic behavior of Specimen 1 as-drawn copper