

October 21, 2011

Physics 131

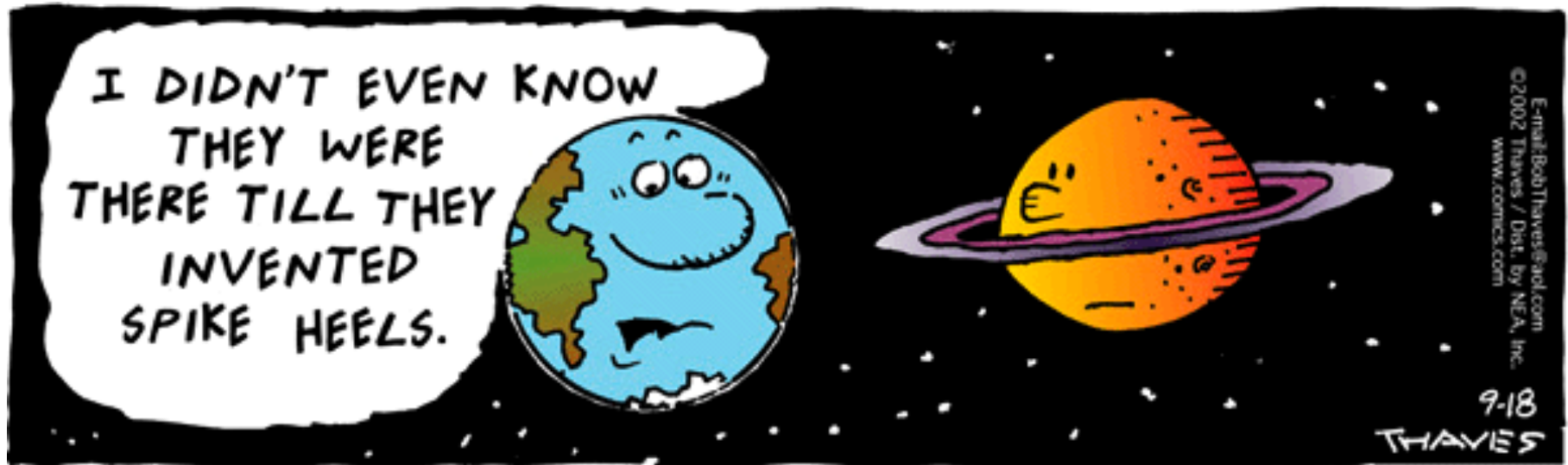
Prof. E. F. Redish

■ Theme Music: Moody Blues

Breaking Point

■ Cartoon: Bob Thaves

Frank & Ernest



Properties of solids

■ Density $\rho = \frac{M}{V}$

■ Stretch and squeeze:

$$F = k\Delta L$$

$$\sigma = F/A \text{ (stress)} \quad \epsilon = \Delta L/L_0 \text{ (strain)}$$

$$E = \sigma/\epsilon \text{ (Young's modulus)}$$

$$k = E \frac{A}{L_0}$$

■ Breaking stress

