

## Problem 11.22

This is easy:

$$L = I\omega$$

$$\Rightarrow L^2 = I^2\omega^2$$

$$\begin{aligned} \text{KE}_{\text{rot}} &= \frac{1}{2}I\omega^2 \\ &= \frac{1}{2} \frac{I^2\omega^2}{I} \\ &= \frac{L^2}{2I} \end{aligned}$$

Embarrassing.