~~Uniform ~~ $T = \frac{\text{force}}{\text{unit length}}$ ~~= [illegible] 2014~~

$w \sim \cos(m\theta)$

$m \sim \varepsilon^{-3/8}$

$B = \frac{1}{12}\frac{Et^3}{(1-\nu^2)}$

$\varepsilon = \frac{B}{R_{in}^2 T_{out}} = \frac{Et^3}{12 R_{in}^2 T_{out}(1-\nu^2)}$

$m \sim \left(\frac{1}{\varepsilon}\right)^{3/8} = \left(\frac{12 R_{in}^2 T_{out}(1-\nu^2)}{Et^3}\right)^{3/8}$ dim ✓

$\tau_c \sim \varepsilon^{1/4} = \frac{T_{in}}{T_{out}} \sim \varepsilon^{1/4}$

$$\boxed{\text{Cerda: } n \sim \mu^{3/4} = \left(\frac{12 U_{out} R_{in}}{h^2}\right)^{3/8}}$$

simple approx $\frac{U_{out}}{R_{out}} \sim \frac{T_{out}}{t E}$

$\sim$ strain stress

$\rightarrow T_{out} \sim \frac{U_{out} t E}{R_{out}}$

T_{out} per unit length (circumf)

$\Rightarrow m \approx \left(\frac{12 R_{in}^2 U_{out} \cancel{t} \cancel{E} (1-\nu^2) R_{out}}{R_{out}^2 \cancel{E} t^{\cancel{3}\,2}}\right)^{3/8}$

$\sim \cancel{\varepsilon} \sim \left(\frac{U_{out} R_{in}}{t^2}\right)^{3/8}$ for $\frac{R_{in}}{R_{out}}$ fixed.

CONSISTENT