

$$E_{\text{Rota}} = (h - r)F = J\beta$$

$$E_{\text{Translat}} = mV = Ft$$

$$J_{\text{Kugel}} = \frac{2}{5}mr^2$$

$$\omega = \beta t = \frac{E_{\text{Rota}} t}{J} = \frac{(h-r)Ft}{\frac{2}{5}mr^2} = \frac{5(h-r)Ft}{2r^2 m} = \frac{5(h-r)V}{2r^2} \quad Ft = Vm \quad \text{nicht so richtig logisch ...}$$

$$\omega = \frac{5(h-r)V}{2r^2}$$

[...]

$$h = \frac{7}{5}r$$