

Schwingungsdauer

b) Feder $T = 2\pi \cdot \sqrt{\frac{m}{D}} \rightarrow T = 0,89s$

Pendel $T = 2\pi \cdot \sqrt{\frac{l}{g}} \rightarrow l = 0,136m$

a)

$$\sin \varphi = \frac{x}{l}$$

$$\sin \varphi = \frac{F_R}{G}$$

$$\frac{x}{l} = \frac{F_R}{m \cdot g} \rightarrow F_R = m \cdot g \cdot \frac{x}{l}$$

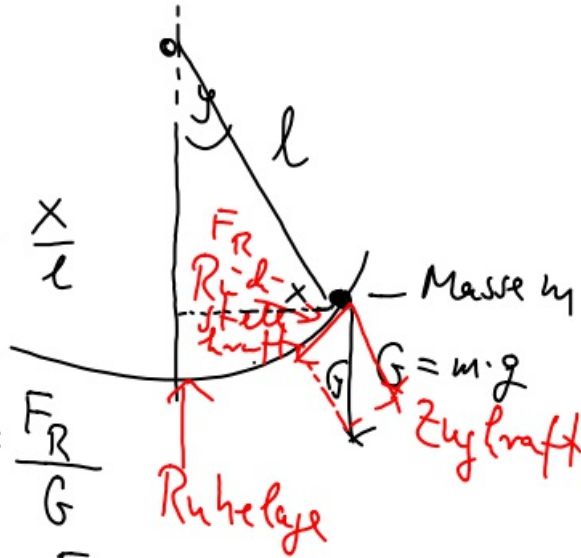
Vergleich mit Feder $F_s = D \cdot x$

$$\text{Feder } T = 2\pi \sqrt{\frac{m}{D}} = 2\pi \sqrt{\frac{m}{\frac{m \cdot g}{l}}}$$

Pendel

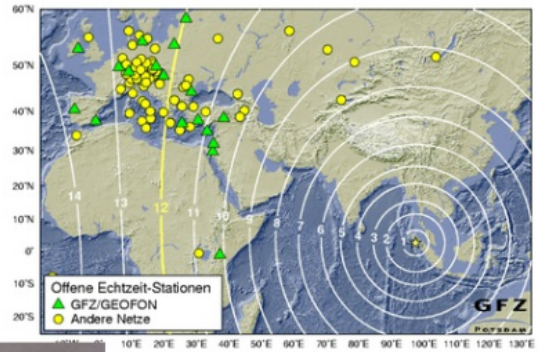
$$= 2\pi \cdot \sqrt{\frac{l}{g}}$$

Schwingkreis: $T = 2\pi \cdot \sqrt{L \cdot C}$



oder

Welle?



Schwingung

