

Vlnová rovnice z vlny na struně

$$\cos \vartheta_1 \approx \cos \vartheta_2 \approx 1$$

$$\sin \vartheta_1 \approx \operatorname{tg} \vartheta_1$$

$$\sin \vartheta_2 \approx \operatorname{tg} \vartheta_2$$

$$\Delta m \approx \mu \Delta x$$

$$F_{1x} = -F \cos \vartheta_1, F_{2x} = F \cos \vartheta_2$$

$$F_{1y} = -F \sin \vartheta_1, F_{2y} = F \sin \vartheta_2$$

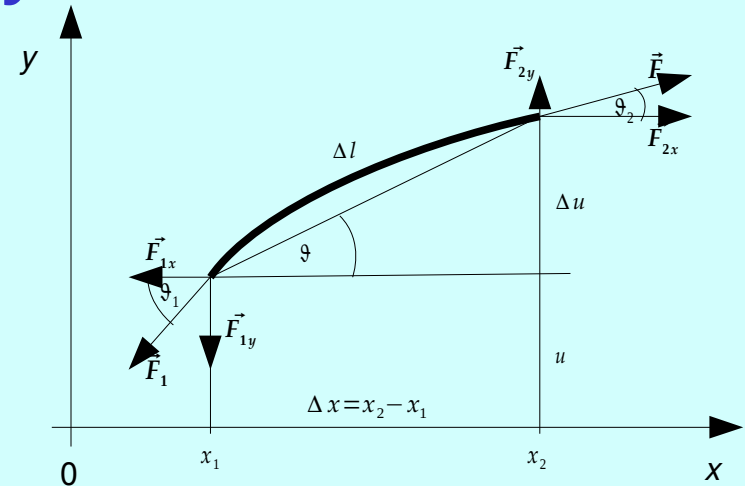
$$F_x = F_{1x} + F_{2x} = F(\cos \vartheta_2 - \cos \vartheta_1) = 0$$

$$F_y = F_{1y} + F_{2y} = F(\sin \vartheta_2 - \sin \vartheta_1) = F(\operatorname{tg} \vartheta_2 - \operatorname{tg} \vartheta_1)$$

$$\operatorname{tg} \vartheta = \frac{dy}{dx}$$

$$F_y = F \left[\left(\frac{\partial y}{\partial x} \right)_{x_2} - \left(\frac{\partial y}{\partial x} \right)_{x_1} \right]$$

$$F_y = F \Delta \left(\frac{\partial y}{\partial x} \right)$$



$$F_y = \Delta m a_y$$

$$F \Delta \left(\frac{\partial y}{\partial x} \right) = \mu \Delta x \left(\frac{\partial^2 y}{\partial t^2} \right)$$

$$\frac{\Delta}{\Delta x} \left(\frac{\partial y}{\partial x} \right) = \frac{\mu}{F} \left(\frac{\partial^2 y}{\partial t^2} \right)$$

$$\lim_{\Delta x \rightarrow 0} \frac{\Delta}{\Delta x} \left(\frac{\partial y}{\partial x} \right) = \left(\frac{\partial^2 y}{\partial x^2} \right)$$

$$\left(\frac{\partial^2 y}{\partial x^2} \right) = \frac{\mu}{F} \left(\frac{\partial^2 y}{\partial t^2} \right)$$

$$\left(\frac{\partial^2 y}{\partial x^2} \right) = \frac{1}{v^2} \left(\frac{\partial^2 y}{\partial t^2} \right)$$