$\bullet\,$ zu zeigen: $c=\lambda_0 f_0$

$$p(x,t) = \hat{p}sin(2\pi(f_0t - \frac{x}{\lambda_0 + \phi}))$$
(1)

$$p(x,t) = \hat{p}sin(2\pi(f_0t - \frac{x}{\lambda_0 + \phi}))$$

$$\frac{d^2a}{dx^2} = \frac{1}{c^2}\frac{d^2}{dt^2}$$
(2)

$$\frac{d^2a}{dx^2} = \frac{1}{c^2} \frac{d^2}{dt^2}$$

$$\frac{d^2p}{dx^2} = \frac{d}{dx} - \hat{p}cos(2\pi(f_0t - \frac{x}{\lambda_0} + \phi))$$
(3)