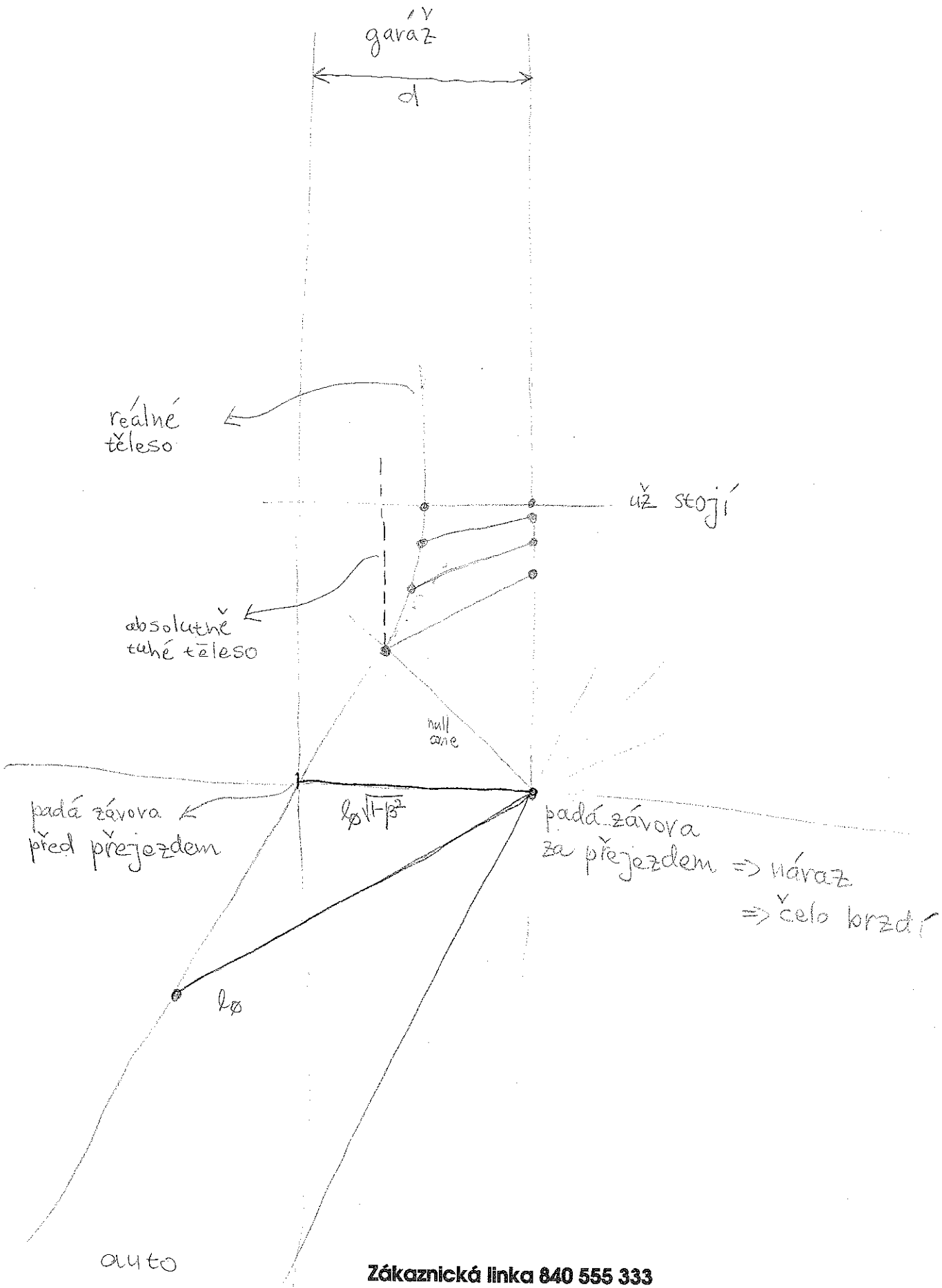
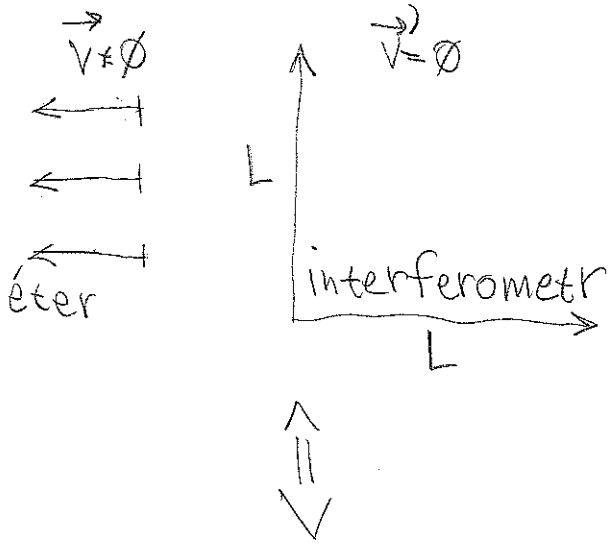
PRAŽSKÁ PLYNÁRENSKÁ, a.s.

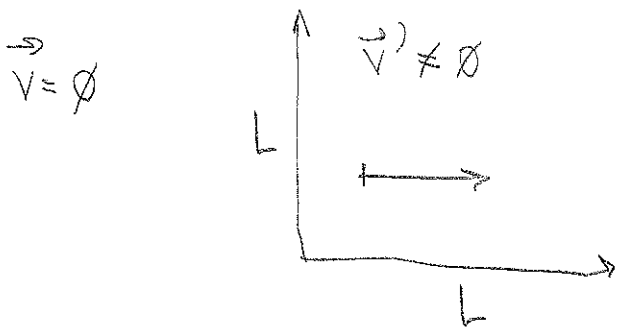
# Šílený závoráři

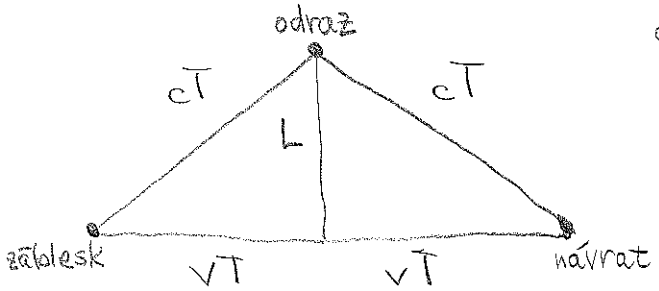


# Michelson - Morley (1887)



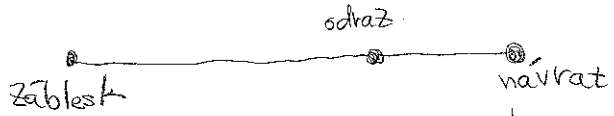

c ... rychlost šíření signálu vůči éteru




$$c^2T^2 = L^2 + v^2T^2 \Rightarrow T = \frac{L}{c\sqrt{1-v^2/c^2}}$$

$$\Rightarrow \tau_\perp = 2T = \frac{2L}{c\sqrt{1-v^2/c^2}} = \frac{2L}{c}\gamma$$




$$cT_1 = L + vT_1 \Rightarrow T_1 = \frac{L}{c-v}$$

$$cT_2 = L - vT_2 \Rightarrow T_2 = \frac{L}{c+v}$$

$$\Rightarrow \tau_\parallel = T_1 + T_2 = \frac{2cL}{c^2-v^2} = \frac{2L}{c}\gamma^2$$

$\boxed{\tau_\parallel \neq \tau_\perp}$ $\Rightarrow$ netriviální interference + po pootočení přístroje se rozdíl časů změní $\Rightarrow$ změna interferenčních hran

(Einstein: $L \to L\sqrt{1-v^2/c^2} = \frac{L}{\gamma} \Rightarrow \tau_\parallel = \frac{2L}{c}\gamma^2 = \frac{2L}{c}\gamma = \tau_\perp$)