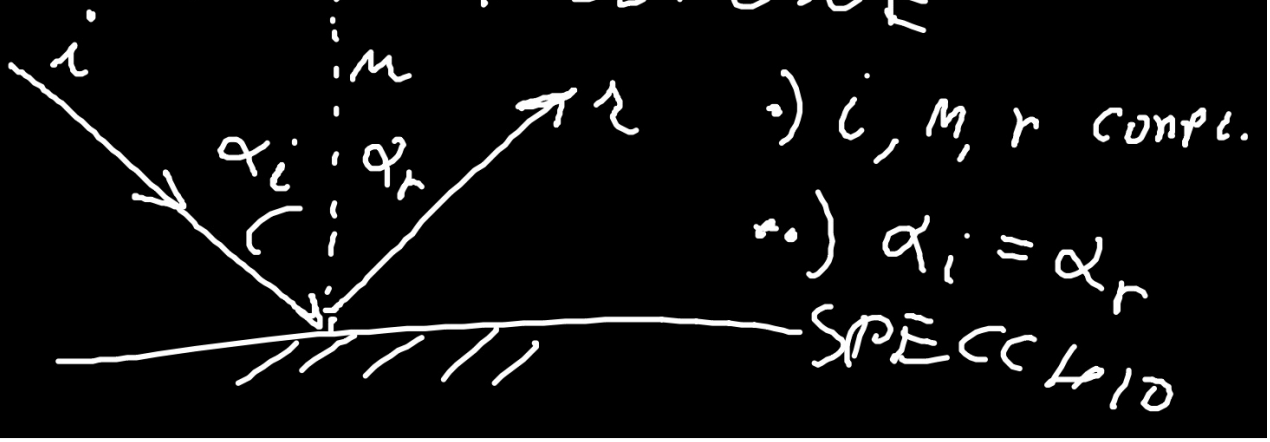
LA LEGGE DELLA RIFLESSIONE

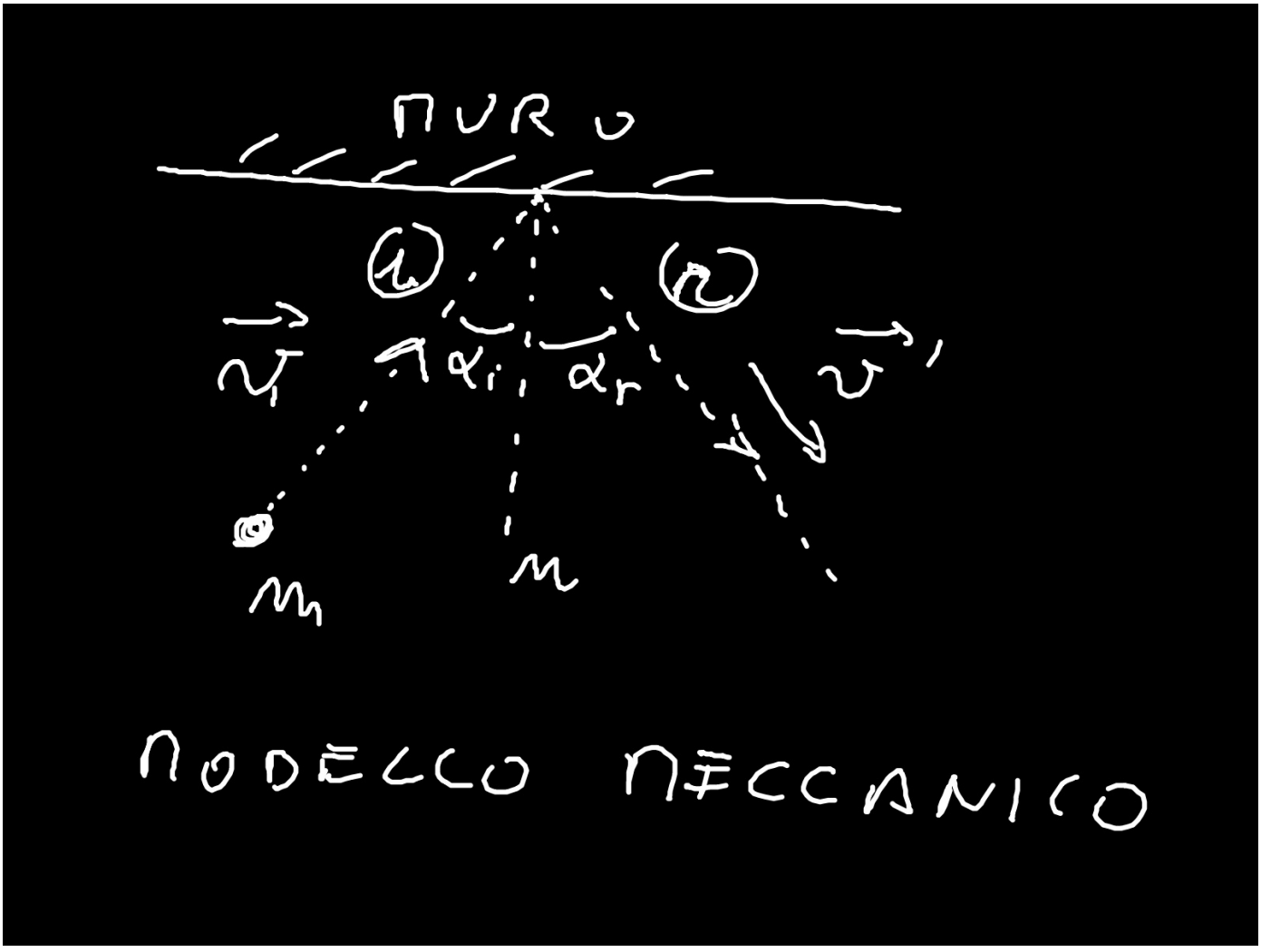


·) i, M, r compl.

··) $\alpha_i = \alpha_r$

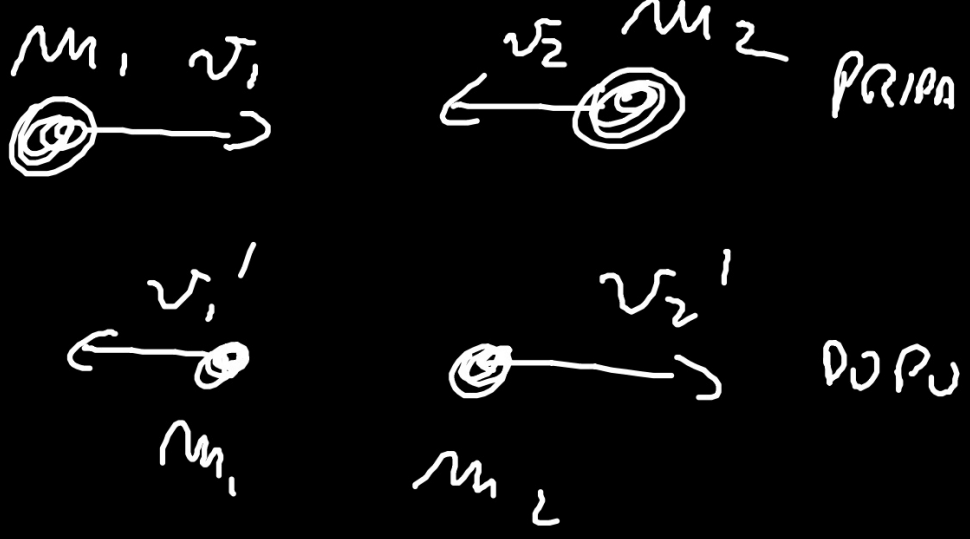
MODELLO/INTERPRETAZ.

MECCANICA



MODELLO MECCANICO

URTO



$$\begin{cases} \text{COS } \vec{p} \\ \text{CONS. } E_c \end{cases} \rightarrow \begin{matrix} v_1' \\ v_2' \end{matrix}$$

$$v_1' = \frac{m_1 - m_2}{m_1 + m_2} v_1 + \frac{2m_2}{m_1 + m_2} v_2$$

$$v_2' = \frac{m_2 - m_1}{m_1 + m_2} v_2 + \frac{2m_1}{m_1 + m_2} v_1$$

$v_2 = 0 \qquad m_2 \to \infty$

$\downarrow$

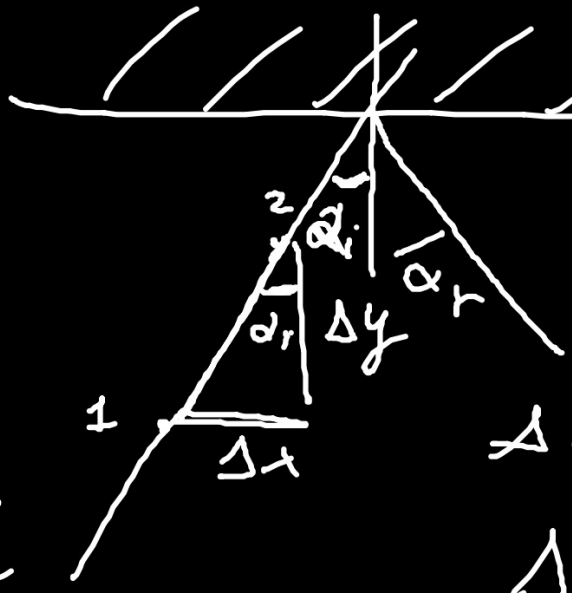
$v_2' = 0$

$$v_1' = \lim_{m_2 \to \infty} \frac{m_1 - m_2}{m_1 + m_2} v_1$$

$$= \underbrace{\frac{m_1 - m_2}{m_1 + m_2}}_{-1}$$

$$= -v_1$$

$$|v_1'| = |v_1|$$



$$\Delta x = v_x \cdot \Delta t$$

$$\Delta y = v_y \Delta t$$

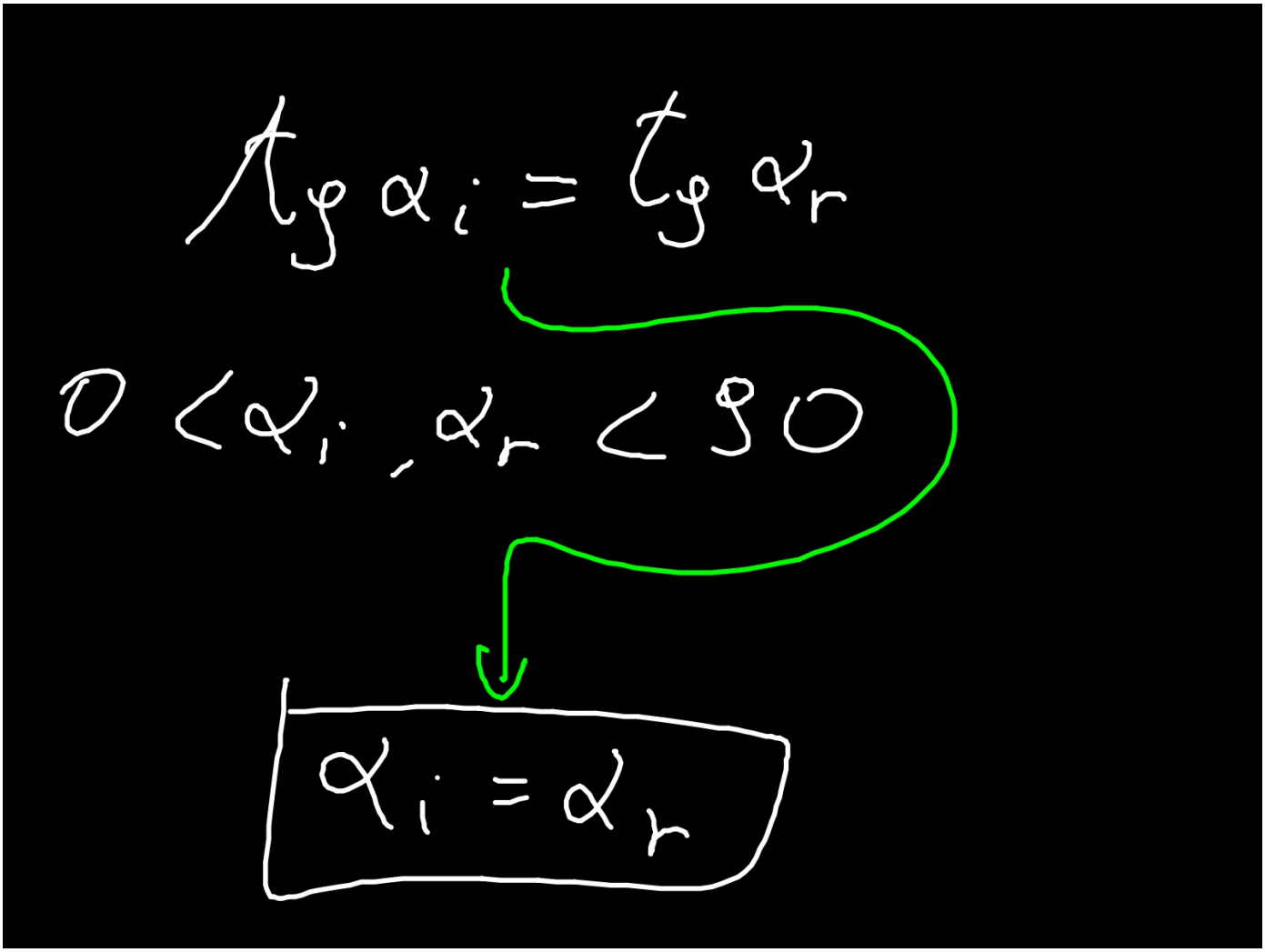
$$\alpha_i : \quad \operatorname{tg} \alpha_i = \frac{\Delta x}{\Delta y} = \frac{v_x \Delta t}{v_y \Delta t}$$

α_r :

$$\tan \alpha_r = \frac{v_x' \cancel{\Delta t}}{v_y' \cancel{\Delta t}}$$

$$= \frac{v_x'}{v_y'}$$

$$= \frac{v_x}{v_y}$$


$\tan_g \alpha_i = \tan_g \alpha_r$
$0 < \alpha_i, \alpha_r < 90$
$\alpha_i = \alpha_r$