URTO TRA DUE CARRELLI

$v_B = cost \rightarrow \vec{F}_B = 0$

B R

$$\vec{F}_{B;R} = -\vec{F}_{R,B}$$

$$m_B \cdot \vec{a}_B = - m_R \cdot \vec{a}_R$$

Δt : durata dell'urto

$$m_B \cdot \frac{\Delta \vec{v}_B}{\Delta t} = - m_R \cdot \frac{\Delta \vec{v}_R}{\Delta t}$$

$$m_B \Delta \vec{v}_B = -m_R \Delta \vec{v}_R$$

$$m_B \Delta \vec{v}_B + m_R \cdot \Delta \vec{v}_R = 0$$

$$\Delta(m_B \vec{v}_B) + \Delta(m_R \vec{v}_R) = 0$$

$$\Delta(m_B \vec{v}_B + m_R \vec{v}_R) = 0$$

$$m_B \vec{v}_B + m_R \vec{v}_R = \text{Cost}$$

$$\vec{p}_B + \vec{p}_R = \text{Cost}$$

QUANTITÀ DI MOTO

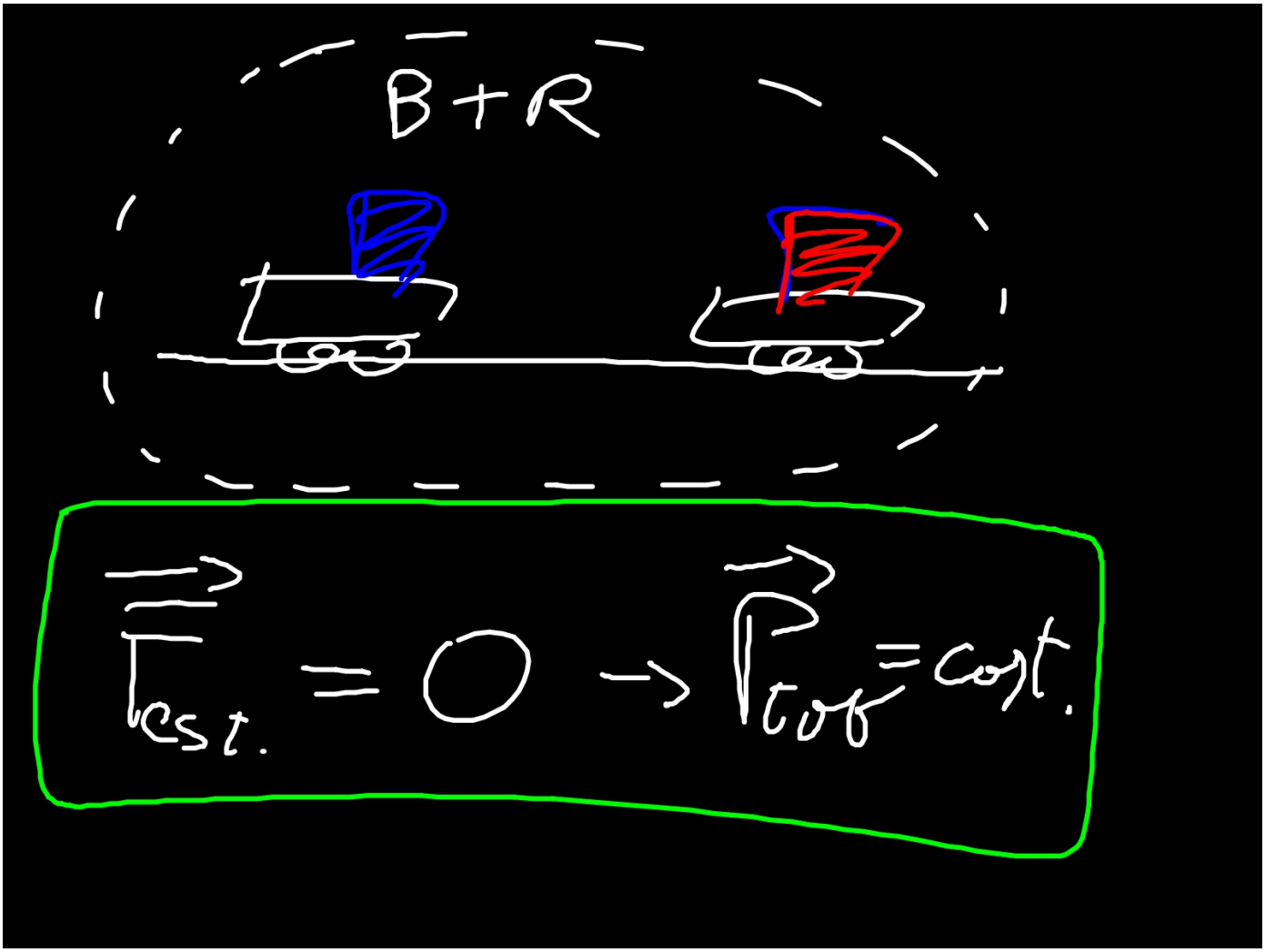
$$\vec{p} = m \cdot \vec{v}$$

(R): PRIMA $v_{R,x} = 0$

DOPO $v'_{R,x} = 0.6$ m/s

(B) $v_{B,x} = 0.7$ m/s PRIMA

$v'_{B,x} = 0.5$ m/s DOPO


B+R
$\vec{F}_{est.} = 0 \rightarrow \vec{p}_{tot} = const.$

$$\vec{p}_{\text{об}} = m_K \vec{v}_K + m_B \vec{v}_B$$

$$= (m_K + m_B) \cdot \vec{v}_{\text{сп}}$$

$$\Delta \vec{p}_{\text{об}} = 0 \quad \Rightarrow \quad \vec{v}_{\text{сп}} = \text{const}$$