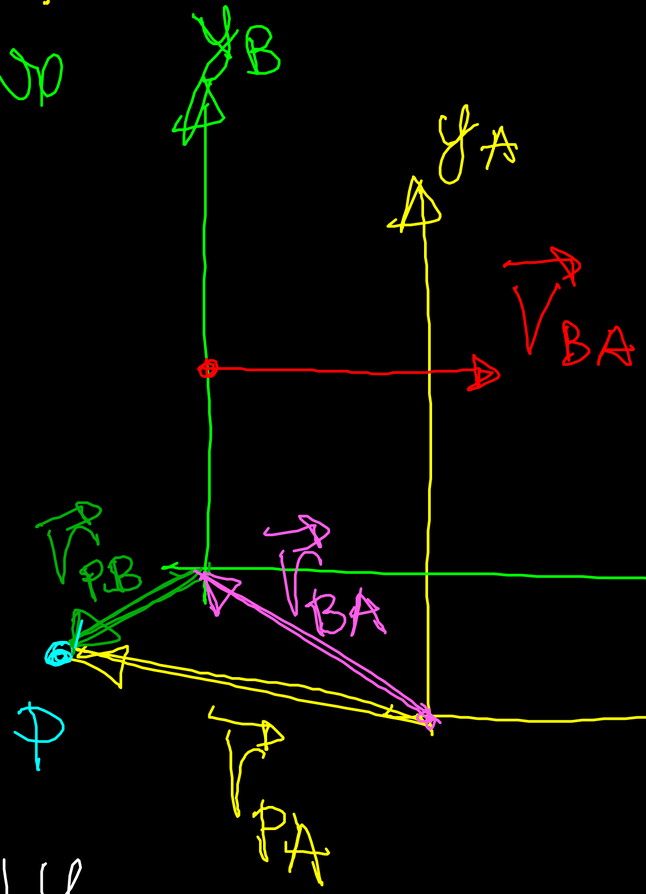
CINEMATICA DEI MOTI RELATIVI

A → STAZ.
B → TRASL



$y_B \parallel y_A$

$x_B \parallel x_A$

$$\vec{r}_{PA} = \vec{r}_{BA} + \vec{r}_{PB}$$

$$\frac{d\vec{r}_{PA}}{dt} = \frac{d}{dt}\vec{r}_{BA} + \frac{d}{dt}\vec{r}_{PB}$$

$$\vec{V}_{PA} = \vec{V}_{BA} + \vec{V}_{PB}$$

$$\vec{V}_{PA} = 0 \Rightarrow \vec{V}_{PB} = -\vec{V}_{BA}$$

$$\vec{V}_{PA} = \vec{V}_{BA} + \vec{V}_{PB}$$

$\vec{V}_{BA}$ È COST

$\vec{a}_{TR} = 0$

$\vec{V}_{BA}$ NON È COST

$$\frac{d\vec{V}_{PA}}{dt} = \frac{d}{dt}\vec{V}_{BA} + \frac{d\vec{V}_{PB}}{dt}$$

$$\vec{a}_{PA} = \vec{a}_{BA} + \vec{a}_{PB} + \vec{a}_{TR}$$

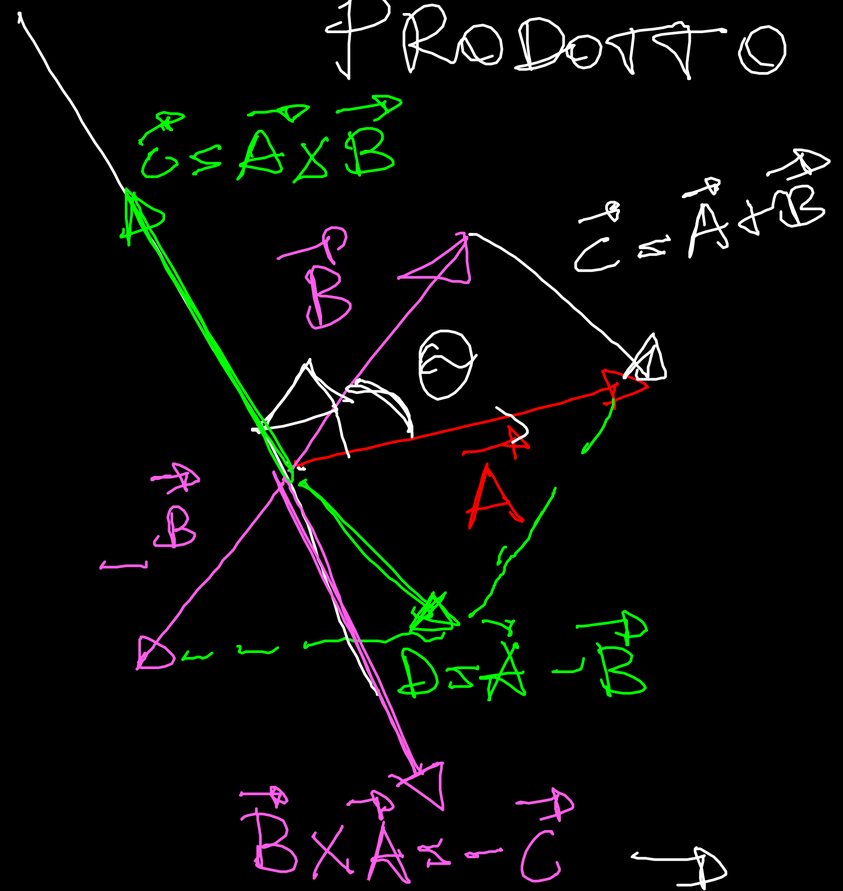
- ASSI PARALLELI DURANTE IL MOTO

$$\vec{a}_{PA} = \vec{a}_{BA} + \vec{a}_{PB} + \vec{a}_{CORIOLIS}$$

- ASSI NON P. DURANTE IL MOTO

$$\vec{a}_{CORIOLIS} = \vec{\omega} \times \vec{V}_{PB}$$

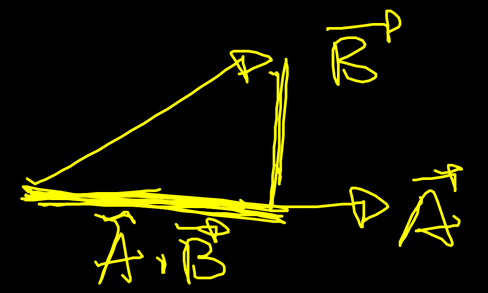
PRODOTTO FRA VETTORI



• PRODOTTO SCALARE (EST.)

$$\vec{A}\cdot\vec{B} = |\vec{A}||\vec{B}|\cos\theta$$

$$\vec{A}\cdot\vec{B} = \vec{B}\cdot\vec{A}$$



• PRODOTTO VETTORE (INT.)

$$\vec{C} = \vec{A}\times\vec{B}$$

$$-\vec{C} = \vec{B}\times\vec{A}$$

$$|\vec{C}| = |\vec{A}\times\vec{B}| = |\vec{A}||\vec{B}|\sin\theta$$