



$$\vec{\Omega}_{1/0} = \dot{\psi} \vec{z}_0 \quad ; \quad \vec{\Omega}_{2/0} = \dot{\theta} \vec{z}_0 \quad ; \quad \vec{\Omega}_{3/2} = \dot{\varphi} \vec{x}_2$$

$$\vec{AC} = \lambda \vec{x}_2$$

Conditions RSG en I :

$$\begin{aligned} \vec{V}_{I \in 1/3} &= \vec{0} = \vec{V}_{I \in 1/0} - \vec{V}_{I \in 3/0} \\ &= [\vec{V}_{O \in 1/0} + \vec{IO} \wedge \vec{\Omega}_{1/0}] - [\vec{V}_{C \in 3/0} + \vec{IC} \wedge \vec{\Omega}_{3/0}] \\ &= (-\lambda \vec{x}_2) \wedge \dot{\psi} \vec{z}_0 - [(\dot{\lambda} \vec{x}_2 + \lambda \dot{\theta} \vec{y}_2) + \pi_3 \vec{z}_0 \wedge (\dot{\varphi} \vec{x}_2 + \dot{\theta} \vec{z}_0)] \\ &= -\lambda \dot{\psi} (-\vec{y}_2) - \dot{\lambda} \vec{x}_2 - \lambda \dot{\theta} \vec{y}_2 - \pi_3 \dot{\varphi} \vec{y}_2 \\ &= (\lambda \dot{\psi} - \dot{\lambda} - \pi_3 \dot{\varphi}) \vec{y}_2 - \dot{\lambda} \vec{x}_2 \end{aligned}$$

$$\text{RSG si : } \begin{cases} \lambda = ct \\ \lambda \dot{\psi} - \dot{\lambda} - \pi_3 \dot{\varphi} = 0 \end{cases}$$