

I. Torseur cinétique

$$\{\mathcal{C}_{S/\mathcal{R}_0}\} = \left\{ \begin{array}{l} \overrightarrow{p_{S/\mathcal{R}_0}} = \int_S \overrightarrow{v_{M_{S/\mathcal{R}_0}}} dm \\ \overrightarrow{\sigma_{C_{S/\mathcal{R}_0}}} = \int_S \overrightarrow{CM} \wedge \overrightarrow{v_{M_{S/\mathcal{R}_0}}} dm \end{array} \right\}_C \quad \left| \begin{array}{l} \mathcal{C}_{S/\mathcal{R}_0} : \text{torseur cinétique} \\ \overrightarrow{p_{S/\mathcal{R}_0}} : \text{quantité de mouvement} \\ \overrightarrow{\sigma_{C_{S/\mathcal{R}_0}}} : \text{moment cinétique en C} \end{array} \right.$$

$$\{\mathcal{C}_{S/\mathcal{R}_0}\} = \left\{ \begin{array}{l} \overrightarrow{p_{S/\mathcal{R}_0}} = m \overrightarrow{v_{G_{S/\mathcal{R}_0}}} \\ \overrightarrow{\sigma_{G_{S/\mathcal{R}_0}}} = \overrightarrow{I_G(S)} \overrightarrow{\Omega_{S/\mathcal{R}_0}} \end{array} \right\}_G = \left\{ \begin{array}{l} \overrightarrow{p_{S/\mathcal{R}_0}} \\ \overrightarrow{\sigma_{C_{S/\mathcal{R}_0}}} = \overrightarrow{\sigma_{G_{S/\mathcal{R}_0}}} + \overrightarrow{CG} \wedge \overrightarrow{p_{S/\mathcal{R}_0}} \end{array} \right\}_C$$

II. Torseur dynamique

$$\{\mathcal{D}_{S/\mathcal{R}_0}\} = \left\{ \begin{array}{l} \overrightarrow{h_{S/\mathcal{R}_0}} = \int_S \overrightarrow{a_{M_{S/\mathcal{R}_0}}} dm \\ \overrightarrow{\delta_{C_{S/\mathcal{R}_0}}} = \int_S \overrightarrow{CM} \wedge \overrightarrow{a_{M_{S/\mathcal{R}_0}}} dm \end{array} \right\}_C \quad \left| \begin{array}{l} \mathcal{D}_{S/\mathcal{R}_0} : \text{torseur dynamique} \\ \overrightarrow{h_{S/\mathcal{R}_0}} : \text{quantité d'accélération} \\ \overrightarrow{\delta_{C_{S/\mathcal{R}_0}}} : \text{moment dynamique en C} \end{array} \right.$$

$$\{\mathcal{D}_{S/\mathcal{R}_0}\} = \left\{ \begin{array}{l} \overrightarrow{h_{S/\mathcal{R}_0}} = m \overrightarrow{a_{G_{S/\mathcal{R}_0}}} \\ \overrightarrow{\delta_{G_{S/\mathcal{R}_0}}} = \left(\frac{d \overrightarrow{\sigma_{C_{S/\mathcal{R}_0}}}}{dt} \right)_{\mathcal{R}_0} \end{array} \right\}_G = \left\{ \begin{array}{l} \overrightarrow{h_{S/\mathcal{R}_0}} \\ \overrightarrow{\delta_{C_{S/\mathcal{R}_0}}} = \overrightarrow{\delta_{G_{S/\mathcal{R}_0}}} + \overrightarrow{CG} \wedge \overrightarrow{h_{S/\mathcal{R}_0}} \end{array} \right\}_C$$