FOURIER FOURIER etc in fine

$$\begin{array}{c} a \\ min-\\ ma \\ ?^{0} \\ ? \\ ? \\ ? \\ ? \\ ? \\ ? \\ ? \\ ? \\ BORN \\ OP-\\ ENHER \\ ECKART? \\ OXYZ \\ CXYZ \\ CYYZ \\ C$$

$$(1) \begin{array}{c} \overrightarrow{\rho_{\alpha}} = \overrightarrow{r_{\alpha}} - \overrightarrow{a_{\alpha}} \\ v_{\alpha} \\ \overrightarrow{v_{\alpha}} \\ \overrightarrow{v_{\alpha}} = \overrightarrow{r_{\alpha}} = \overrightarrow{\rho_{\alpha}} \\ \overrightarrow{a_{\alpha}} \end{array}$$

$$\overrightarrow{V_{\alpha}} = \overrightarrow{R} + \left(\overrightarrow{\omega} \wedge \overrightarrow{r_{\alpha}}\right) + \overrightarrow{v_{\alpha}}$$

$$\frac{\dot{R}^{2} \sum_{\alpha} m_{\alpha} \left(\overrightarrow{\omega} \wedge \overrightarrow{r_{\alpha}}\right)^{2} + \sum_{\substack{+\alpha \\ +\alpha \\ \neq 0}} m_{\alpha} v_{\alpha}^{2} \\
2 \dot{R} \\
\sum_{+\alpha} m_{\alpha} \overrightarrow{v_{\alpha}} \\
2 \left(\overrightarrow{R} \wedge \overrightarrow{\omega}\right) \sum_{\alpha} m_{\alpha} \overrightarrow{r_{\alpha}} \\
+ \sum_{2 \dot{\omega}} \sum_{\alpha} m_{\alpha} \left(\overrightarrow{r_{\alpha}} \wedge \overrightarrow{v_{\alpha}}\right)$$

$$\sum m_{\alpha} \stackrel{\rightarrow}{v_{\alpha}} = 0$$

$$\sum_{\alpha} m_{\alpha} \vec{v_{\alpha}} = 0$$

$$\sum_{\alpha} m_{\alpha} \vec{r_{\alpha}} = 0$$

$$(4)$$

$$\sum m_{\alpha} \left(\overrightarrow{a_{\alpha}} \wedge \overrightarrow{v_{\alpha}} \right) = 0$$

$$\sum_{\alpha} m_{\alpha} \left(\overrightarrow{a_{\alpha}} \wedge \overrightarrow{v_{\alpha}} \right) = 0$$

$$\sum_{\alpha} m_{\alpha} \left(\overrightarrow{r_{\alpha}} \wedge \overrightarrow{v_{\alpha}} \right) = \sum_{\alpha} m_{\alpha} \left(\overrightarrow{\rho_{\alpha}} \wedge \overrightarrow{v_{\alpha}} \right)$$

$$(6)$$
ECKART
??

$$2T = \dot{R}^2 \sum_{\alpha} m_{\alpha} + \sum_{\alpha} m_{\alpha} \left(\overrightarrow{\omega} \wedge \overrightarrow{r_{\alpha}} \right)^2 + \sum_{\alpha} m_{\alpha} v_{\alpha}^2 + 2 \stackrel{\rightarrow}{\omega} \sum_{\alpha} m_{\alpha} \left(\overrightarrow{r_{\alpha}} \wedge \overrightarrow{v_{\alpha}} \right)$$

(7) Cori- \vec{L} is $\vec{r}_{\alpha} \approx \vec{a}_{\alpha}$ Casimir?

$$2T_n = 2T_R + 2T_V ensupposant 2T_{VR} = 0$$
(8)

$$2T_{n} = 2T_{R}$$

$$\psi_{R_{\alpha}}^{n} = \psi_{R_{\alpha}}^{R} \bullet$$

$$\psi_{R_{\alpha}}^{R} \bullet$$

$$E_{R} = E_{V} + E_{R}$$

$$\psi_{R_{\alpha}}^{R}$$