

$$E_{\{i\} \rightarrow \{j, k\}} \left[a_j \alpha_i + a_k \alpha_i + t_j \tau_i + t_k \tau_i, y_j \eta_i + T_j y_k \eta_i + X_j \xi_i + X_k \xi_i, \right. \\ \left. \mathbf{1} + \left(-\hbar a_j T_j y_k \eta_i + \frac{1}{2} \hbar T_j y_j y_k \eta_i^2 - \hbar a_j X_k \xi_i + \frac{1}{2} \hbar X_j X_k \xi_i^2 \right) \epsilon + \mathcal{O}[\epsilon]^2 \right]$$