

$$\begin{aligned}
& \left[ L^3(p_A) + L^3(p_B) \right. \\
&= \left. \left[ i(p^2 \frac{\partial}{\partial p_1} - p^1 \frac{\partial}{\partial p_2}) + i(k^2 \frac{\partial}{\partial k_1} - k^1 \frac{\partial}{\partial k_2}) \right] \right. \\
&= \left. (L_o^3 + L_i^3) \right]
\end{aligned}$$