

$$E_{(j) \rightarrow (i)} \left[\hbar a_i t_i, \hbar x_i y_i, \frac{1}{\sqrt{T_i}} + \left(\frac{\hbar a_i}{\sqrt{T_i}} + \frac{\hbar a_i^2}{\sqrt{T_i}} - \frac{\hbar^3 x_i^2 y_i^2}{4 \sqrt{T_i}} \right) \epsilon + O[\epsilon]^2 \right]$$