

$$\begin{aligned}
& \mathbb{E}_{\{\} \rightarrow \{\mathbf{1}\}} \left[ -\hbar \mathbf{a}_1 \mathbf{b}_1, -\frac{\hbar \mathbf{x}_1 \mathbf{y}_1}{B_1}, \right. \\
& \mathbf{1} + \left( \frac{\hbar^2 \mathbf{x}_1 \mathbf{y}_1}{B_1} - \frac{\hbar^2 \mathbf{a}_1 \mathbf{x}_1 \mathbf{y}_1}{B_1} - \frac{3 \hbar^3 \mathbf{x}_1^2 \mathbf{y}_1^2}{4 B_1^2} \right) \epsilon + \left( -\frac{\hbar^3 \mathbf{x}_1 \mathbf{y}_1}{2 B_1} + \frac{\hbar^3 \mathbf{a}_1 \mathbf{x}_1 \mathbf{y}_1}{B_1} - \frac{\hbar^3 \mathbf{a}_1^2 \mathbf{x}_1 \mathbf{y}_1}{2 B_1} + \frac{5 \hbar^4 \mathbf{x}_1^2 \mathbf{y}_1^2}{2 B_1^2} - \right. \\
& \left. \frac{5 \hbar^4 \mathbf{a}_1 \mathbf{x}_1^2 \mathbf{y}_1^2}{2 B_1^2} + \frac{\hbar^4 \mathbf{a}_1^2 \mathbf{x}_1^2 \mathbf{y}_1^2}{2 B_1^2} - \frac{67 \hbar^5 \mathbf{x}_1^3 \mathbf{y}_1^3}{36 B_1^3} + \frac{3 \hbar^5 \mathbf{a}_1 \mathbf{x}_1^3 \mathbf{y}_1^3}{4 B_1^3} + \frac{9 \hbar^6 \mathbf{x}_1^4 \mathbf{y}_1^4}{32 B_1^4} \right) \epsilon^2 + \mathbf{0} [\epsilon]^3 \left. \right]
\end{aligned}$$