

$$\begin{aligned}
& \mathbb{E}_{\{\} \rightarrow \{1\}} \left[-\hbar \mathbf{a}_1 \mathbf{b}_1, -\frac{\hbar \mathbf{x}_1 \mathbf{y}_1}{\mathbf{B}_1}, \right. \\
& \mathbf{B}_1 + \left(-\hbar \mathbf{a}_1 \mathbf{B}_1 - \hbar^2 \mathbf{x}_1 \mathbf{y}_1 - \hbar^2 \mathbf{a}_1 \mathbf{x}_1 \mathbf{y}_1 - \frac{3 \hbar^3 \mathbf{x}_1^2 \mathbf{y}_1^2}{4 \mathbf{B}_1} \right) \epsilon + \left(\frac{1}{2} \hbar^2 \mathbf{a}_1^2 \mathbf{B}_1 - \frac{1}{2} \hbar^3 \mathbf{x}_1 \mathbf{y}_1 + \frac{1}{2} \hbar^3 \mathbf{a}_1^2 \mathbf{x}_1 \mathbf{y}_1 - \right. \\
& \left. \frac{\hbar^4 \mathbf{x}_1^2 \mathbf{y}_1^2}{2 \mathbf{B}_1} + \frac{\hbar^4 \mathbf{a}_1 \mathbf{x}_1^2 \mathbf{y}_1^2}{4 \mathbf{B}_1} + \frac{\hbar^4 \mathbf{a}_1^2 \mathbf{x}_1^2 \mathbf{y}_1^2}{2 \mathbf{B}_1} - \frac{13 \hbar^5 \mathbf{x}_1^3 \mathbf{y}_1^3}{36 \mathbf{B}_1^2} + \frac{3 \hbar^5 \mathbf{a}_1 \mathbf{x}_1^3 \mathbf{y}_1^3}{4 \mathbf{B}_1^2} + \frac{9 \hbar^6 \mathbf{x}_1^4 \mathbf{y}_1^4}{32 \mathbf{B}_1^3} \right) \epsilon^2 + \mathbf{0} [\epsilon]^3 \left. \right]
\end{aligned}$$