

$$\begin{aligned} \langle p^i \rangle &\stackrel{\text{def}}{=} \int \frac{d^d \boldsymbol{p}}{2E_{\boldsymbol{p}}} p^i \llbracket X, \boldsymbol{P} | \boldsymbol{p} \rrbracket \llbracket \boldsymbol{p} | X, \boldsymbol{P} \rrbracket \\ &\stackrel{\sigma \rightarrow \infty}{\rightarrow} \left(1 + \frac{d}{2\sigma m^2} + \dots \right) P^i \end{aligned}$$