

$$\begin{aligned}
A(K_L \rightarrow 2\gamma_\perp)O_{(p^4)} &= A(K_L \rightarrow \pi^0 \rightarrow 2\gamma_\perp) + A(K_L \rightarrow \eta_8 \rightarrow 2\gamma_\perp) \\
&= A(K_L \rightarrow \pi^0)A(\pi^0 \rightarrow 2\gamma_\perp) \left[ \frac{1}{M_K^2 - M_\pi^2} + \frac{1}{3} \cdot \frac{1}{M_K^2 - M_8^2} \right] \simeq 0
\end{aligned}$$