

$$c_+^{(2)}(F; G; \mathbf{p}, \mathbf{q}) = -2\pi i \int_{[\mathbb{R}-i\delta]} dk^0 \left(\text{Res}_{p^0=-E(\mathbf{p})} + \text{Res}_{p^0=k^0-E(\mathbf{p}-\mathbf{k})} \right) \omega(F, G; p, p-k) \quad (26)$$

$$= - \int_{[\mathbb{R}-i\delta]} dk^0 \int_{\mathcal{C}_{\text{Wick}}(k)} dp^0 \omega(F, G; p, p-k) = -\frac{ie^2}{(2\pi)^4} \int_{[\mathbb{R}-i\delta]} dk^0 F_\mu(k) G_\nu(-k) \int_{\mathcal{C}_{\text{Wick}}(k)} dp^0 \omega^{\mu\nu}(p, k)$$

$$\text{with } \omega^{\mu\nu}(p, k) := \text{tr} \left[\gamma^\nu (\not{p} - m)^{-1} \gamma^\mu (\not{p} - \not{k} - m)^{-1} \right]. \quad (27)$$