For CC inclusive processes, combining with $\int d^3p_N$ and using $\delta^{(3)}(\text{momentum})$ to set $\vec{p}_N = \vec{p} + \vec{q}$

one recovers the usual expression

$$W^{\mu\nu}_{incl} = \frac{3\mathcal{W} m_N^2}{4\pi p_F^3} \int \frac{d^3p}{E_p E_N} \delta(E_p + \omega - E_{p+q}) \theta(p_F - p) \theta(|\vec{p}+\vec{q}| - p_F) W^{\mu\nu}_{SM}$$

which can then be integrated analitically

For NC no "standard expression" exists

some integrations already at PTH level must be done numerically

NOTICE:
when integrating $\eta_{\mu\nu} W^{\mu\nu}$ over d^3u'
→ explicit Q^2 dependence is lost
(To be kept in mind when using NC processes
To measure form factors)