for mesons at rest: $\Pi_L(\omega,0) = \Pi_T(\omega,0)$

then $(T=0)$

$$\frac{1}{\mathcal{M}^2}\left[\Pi(0) + \int_0^\infty \frac{d\omega^2}{\omega^2}\, e^{-\omega^2/\mathcal{M}^2}(-1/\pi)\mathrm{Im}\Pi(\omega,0))\right] = \frac{d_V}{12\pi^2}\left[c_0 + \frac{c_1}{\mathcal{M}^2} + \frac{c_2(\rho)}{\mathcal{M}^4} + \frac{c_3(\rho)}{2\mathcal{M}^6} + \cdots\right]$$

with 'in-medium' Wilson coefficients

$$c_2(\rho) \propto a_G\langle\langle G^2\rangle\rangle + a_q m\langle\langle\bar{q}q\rangle\rangle + a_2\rho$$

$$c_3(\rho) \propto \kappa\langle\langle\bar{q}q\rangle\rangle^2 + a_3\rho$$

but

$$\langle\langle\bar{q}q\rangle\rangle = \langle\bar{q}q\rangle - \frac{\Sigma_N}{2m}\rho; \quad \langle\langle G^2\rangle\rangle = \langle G^2\rangle - \frac{8}{9}m_N^{(0)}\rho$$

medium-dependent vector-meson masses:

$$\frac{m_\rho^*}{m_\rho} = \frac{m_\omega^*}{m_\omega} = 1 - 0.18\frac{\rho}{\rho_0}; \quad \frac{m_\phi^*}{m_\phi} = 1 - 0.15y\frac{\rho}{\rho_0}$$

y : 'strangeness content' of the nucleon