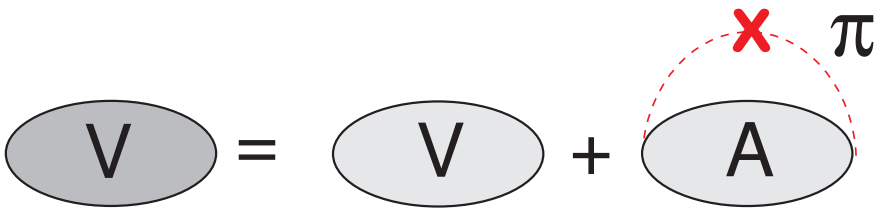
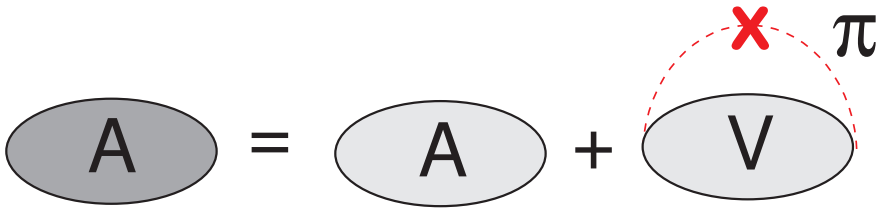
medium: $(\vec{q}=0)$ (J. Kapusta et al. PRD (1994))

$$\int_0^\infty \frac{d\omega}{\omega}\left(\mathrm{Im}\Pi_V(\omega)-\mathrm{Im}\Pi_A(\omega)\right)=0$$
$$\int_0^\infty d\omega\omega\left(\mathrm{Im}\Pi_V(\omega)-\mathrm{Im}\Pi_A(\omega)\right)=0$$

Mixing theorem: (M.Dey et al. PLB (1990))

$$\Pi_V^{\mu\nu}(\omega)=(1-\epsilon)\Pi_V^{\circ\mu\nu}(\omega)+\epsilon\Pi_A^{\circ\mu\nu}(\omega)$$
$$\Pi_A^{\mu\nu}(\omega)=(1-\epsilon)\Pi_A^{\circ\mu\nu}(\omega)+\epsilon\Pi_V^{\circ\mu\nu}(\omega)$$





$$\epsilon=\frac{2}{F_\pi^2}\int\frac{d^3k}{(2\pi)^3}\frac{n(\omega_k)}{\omega_k}=\frac{T^2}{6F_\pi^2}$$