$$W^{\mu\nu} = \sum_{i,f} J^{\mu}(\vec{q})\, J^{\nu *}(\vec{q})\, \delta(E_i - E_f)$$

$$= \lambda_n(E_m) \int X^{(-)*}_{n\vec{p}_i}(\vec{q}+\vec{p})\; j^{\mu}(\vec{p},\vec{q})\; \varphi_n(\vec{p})\; *$$

$$X^{(-)}_{n\vec{p}_i}(\vec{q}+\vec{p})\; j^{\nu *}(\vec{p},\vec{q})\; \varphi^{*}_n(\vec{p})\, d\vec{p}\, d\vec{p}\; \delta(\omega - T'_i - T_B - E_m)$$

$$= \int X^{(-)*}_{n\vec{p}_i}(\vec{q}+\vec{p})\; j^{\mu}(\vec{p},\vec{q})\; \rho(E_m, \vec{p}\,\vec{p})\; j^{\nu *}(\vec{p},\vec{q})\; X^{(-)}_{n\vec{p}_i}(\vec{q}+\vec{p})\, d\vec{p}\, d\vec{p}$$

$$\langle \Psi_0 | a^{\dagger}_{\vec{p}}\; \delta(H_B - E_m - W_A)\; a_{\vec{p}} | \Psi_0 \rangle$$

- ONE-HOLE SPECTRAL DENSITY FUNCTION