

$$\text{Order parameter} \quad \left(\langle \tilde{0} | P P^\dagger | \tilde{0} \rangle \right)^{1/2} = \begin{cases} \alpha_0 = \sum_{\nu>0} U'_\nu V'_\nu \\ \alpha_{dyn} = \sum_{\nu>0} U_\nu^{eff} V_\nu^{eff} \end{cases}$$

pairing vibrations

$$\left(U_\nu^{eff} \right)^2 = 2Y_a^2(j_\nu)/\Omega_\nu; \quad \left(U_\nu^{eff} \right)^2 = 1 - \left(U_\nu^{eff} \right)^2$$

$$\left. \begin{matrix} X_n(j_\nu) \\ Y_n(j_\nu) \end{matrix} \right\} = \frac{\left(\sqrt{\Omega_j/2} \right) \Gamma_n}{2|E_j| \mp W_n}$$

pairing rotations

$$\left. \begin{matrix} U'_\nu \\ V'_\nu \end{matrix} \right\} = \frac{1}{\sqrt{2}} \left(1 \pm \frac{\epsilon_\nu}{\sqrt{\epsilon_\nu^2 + \Delta^2}} \right)^{1/2}$$