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

pairing vibrations

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

pairing rotations

$$Y_n(j_{\nu}) \qquad 2|E_j| \mp W_n$$

$$\frac{U_{\nu}'}{V_{\nu}'}$$

$$= \frac{1}{\sqrt{2}} \left(1 \pm \frac{\epsilon_{\nu}}{\sqrt{\epsilon_{\nu}^2 + \Delta^2}} \right)^{1/2}$$

$$\begin{pmatrix} v \\ v \end{pmatrix}$$

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

$$(\sqrt{\Omega_i}/2)$$

$$\Big)^2 = 1 - \left(U_{\nu}^{eff}\right)$$