Order parameter

$$\left(\langle \tilde{0}|PP^{\dagger}|\tilde{0}\rangle\right)^{1/2} = \begin{cases} \alpha_0 = \sum_{v>0} U'_v V'_v \\ \alpha_{dyn} = \sum_{v>0} U_v^{eff} V_v^{eff} \end{cases}$$

pairing vibrations

$$\left(U_v^{eff}\right)^2 = 2Y_a^2(j_v)/\Omega_v; \qquad \left(V_v^{eff}\right)^2 = 1 - \left(U_v^{eff}\right)^2$$

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

pairing rotations

$$\left.\begin{array}{c} U'_v \\ V'_v \end{array}\right\} = \frac{1}{\sqrt{2}}\left(1 \pm \frac{\epsilon_v}{\sqrt{\epsilon_v^2 + \Delta^2}}\right)^{1/2}$$