$60^{\mathbf{th}}$ Eigenvector

$$\boldsymbol{N_e} \;=\; \mathbf{5} \qquad \boldsymbol{s = \frac{1}{2}} \qquad \boldsymbol{m_s = -\frac{1}{2}}$$

Irred. Representation : $\boldsymbol{\Gamma_{3,2}}$

$$E_{60} \;=\; t + 2U + 8W$$

$$\begin{aligned} |\Psi_{60}\rangle &= |5, \frac{1}{2}, -\frac{1}{2}, \Gamma_{3,2}\rangle \\ &= C_{60,1}\left(|22d\rangle + |2d2\rangle\right) \\ &+ C_{60,2}\left(|d22\rangle\right) \end{aligned}$$

$$\begin{aligned} C_{60-1} &= \frac{1}{\sqrt{6}} \\ C_{60-2} &= -\sqrt{\frac{2}{3}} \\ N_{60} &= \sqrt{2C_{60,1}^2 + C_{60,2}^2} \end{aligned}$$