

234th Eigenvector

$$N_e = 6 \quad s = 0 \quad m_s = 0$$

Irred. Representation : $\Gamma_{4,2}$

$$E_{234} = \frac{1}{2} \left(-J + 5U + 50W + \sqrt{A_1} \right)$$

$$\begin{aligned} |\Psi_{234}\rangle &= |6, 0, 0, \Gamma_{4,2}\rangle \\ &= C_{234,1} (|0222\rangle - |2022\rangle - |2202\rangle + |2220\rangle) \\ &\quad + C_{234,2} (|2du2\rangle - |2ud2\rangle - |d22u\rangle + |u22d\rangle) \end{aligned}$$

$$C_{234-1} = -t$$

$$C_{234-2} = \frac{1}{4} \left(J + U - 2W - \sqrt{A_1} \right)$$

$$N_{234} = 2\sqrt{C_{234,1}^2 + C_{234,2}^2}$$