

## 43<sup>rd</sup> Eigenvector

$$N_e = 3 \quad s = \frac{3}{2} \quad m_s = -\frac{1}{2}$$

Irred. Representation :  $\Gamma_2$

$$E_{43} = \frac{J}{2} - 3t + 6W$$

$$\begin{aligned} |\Psi_{43}\rangle &= |3, \frac{3}{2}, -\frac{1}{2}, \Gamma_2\rangle \\ &= \frac{1}{2\sqrt{3}} (|0ddu\rangle + |0dud\rangle + |0udd\rangle - |d0du\rangle - |d0ud\rangle + |dd0u\rangle \\ &\quad - |ddu0\rangle + |du0d\rangle - |dud0\rangle - |u0dd\rangle + |ud0d\rangle - |udd0\rangle) \end{aligned}$$