11^{st} Eigenvector

$\boldsymbol{N_e = 2 \qquad s = 1 \qquad m_s = -1}$

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

$$E_{11} = \frac{1}{2}(J + 4(t + W))$$

$$\begin{aligned} |\Psi_{11}\rangle &= |2, 1, -1, \Gamma_{4,2}\rangle \\ &= \frac{1}{2}\left(|00dd\rangle + |0d0d\rangle - |d0d0\rangle - |dd00\rangle\right) \end{aligned}$$