

$$\text{stat}=[\text{'f' 'f'}] \mid N=[1 \ 1] \mid J = 1 \mid M=6 \mid V_{aa}=0.00 \mid V_{bb} = 0.00 \mid U_{ab} = 0.00\text{e}+00 \mid \text{pbc} = 0$$

$$\hat{H}_\sigma = -J \sum_{i=0}^{M-1} (1 + (-1)^{i+1} \Delta t) (a_{\sigma,i}^\dagger a_{\sigma,i+1} + h.c.) + \frac{V_{\sigma\sigma}}{2} \sum_{i=0}^M \hat{n}_{\sigma,i} (\hat{n}_{\sigma,i} - 1), \quad \hat{H}_{ab} = U_{ab} \sum_{i=0}^M \hat{n}_{a,i} \hat{n}_{b,i}, \quad \sigma \in a, b$$

$$\hat{H}_{\text{tot}} = H_1 + H_2 + H_{ab}, \quad \hat{H}_{\text{total}} |\lambda\rangle = E_\lambda |\lambda\rangle$$

