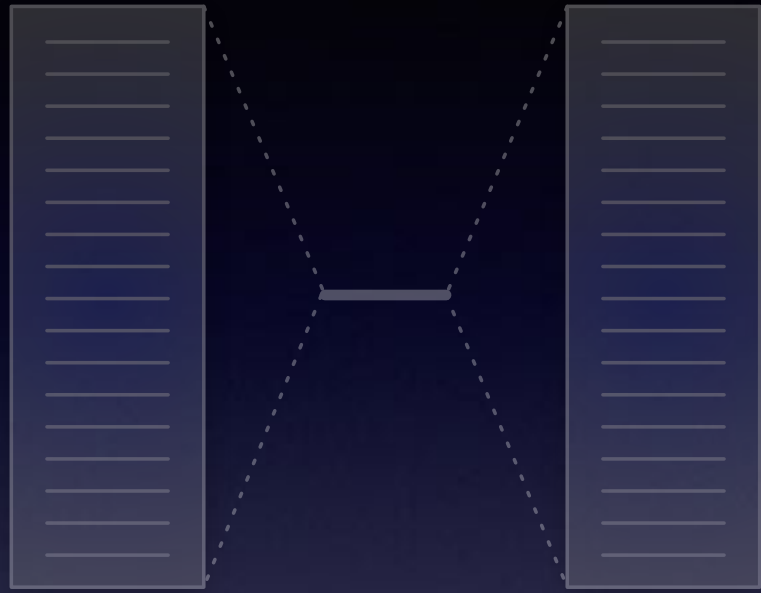
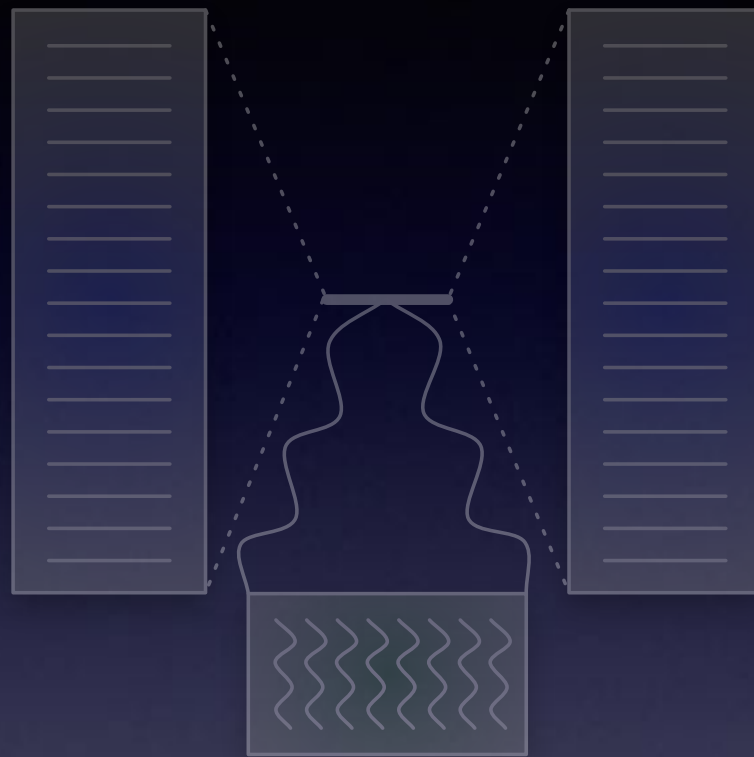


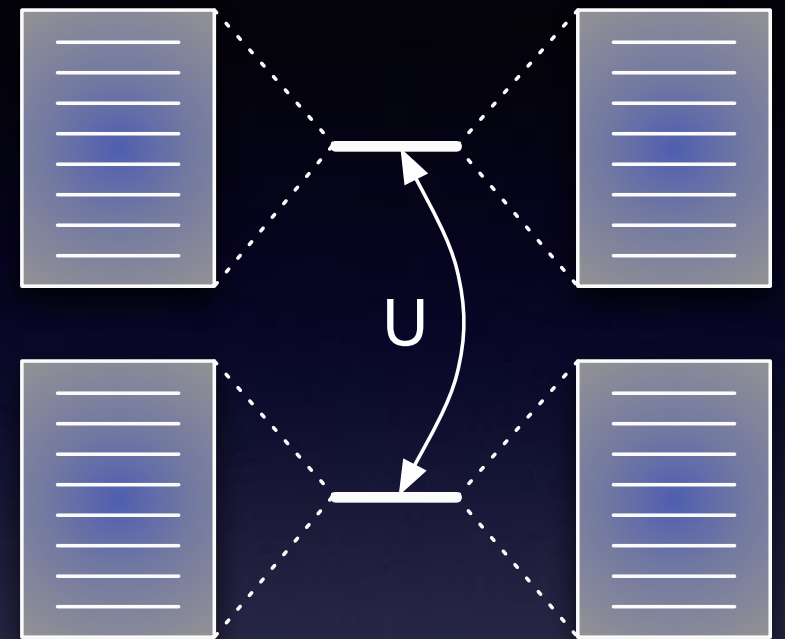
# Three Systems



Landauer

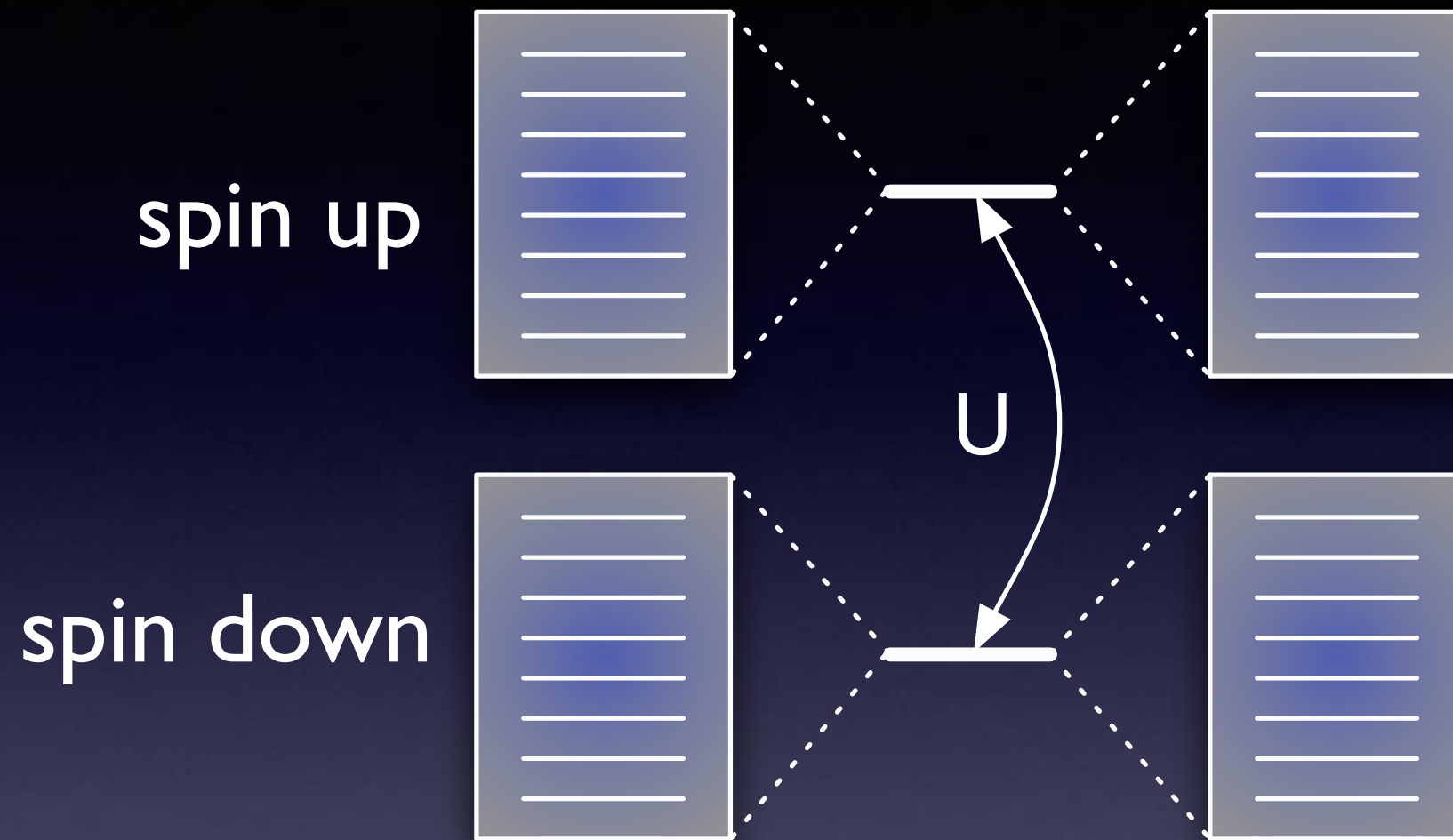


Holstein



Anderson

# Anderson Impurity Model



$$\hat{H} = \hat{H}^{\text{Landauer},\uparrow} + \hat{H}^{\text{Landauer},\downarrow} + U \hat{a}_{0\uparrow}^\dagger \hat{a}_{0\downarrow}^\dagger \hat{a}_{0\downarrow} \hat{a}_{0\uparrow}$$

$$H_{\text{SC}} = H_{\text{SC}}^{\text{Landauer},\uparrow} + H_{\text{SC}}^{\text{Landauer},\downarrow} + U n_{0\uparrow} n_{0\downarrow}$$