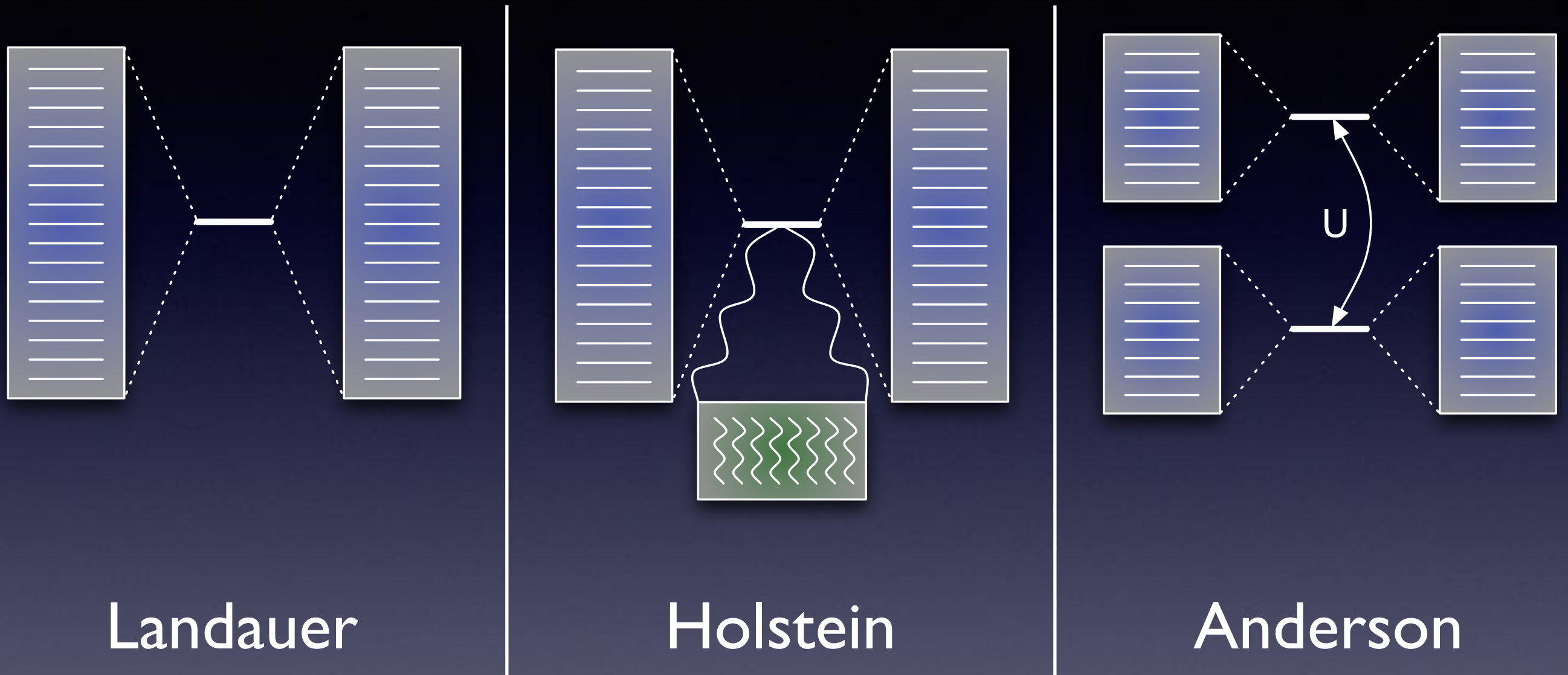$$I_L(t) = \mathrm{Tr}\left(\hat{\rho}\ e^{i\hat{H}t}\ \hat{I}_L\ e^{-i\hat{H}t}\right)$$

1. Average over many trajectories

2. Select representative initial conditions

3. Run trajectories

4. Calculate observable at each time

Three Systems

Landauer

Holstein

Anderson

U

Nonequilibrium quantum transport
(conduction through molecular electronics)
from classical equations of motion