non-interacting FL

$$H_{SYK_2} = $$ t_{ij}
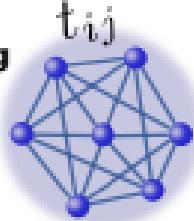
filling-independent "fast" oscillatory dynamics

initial **many-body pure state** with density imbalance

$e^{-itH_{SYK_2}}$

interacting NFL

$$H_{SYK_4} = $$ J_{ijkl}

filling-dependent slow non-oscillatory dynamics

$|\Psi_i\rangle$

$e^{-itH_{SYK_4}}$
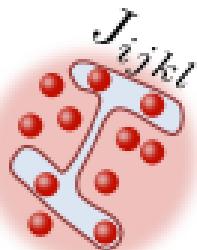
final **pure state** with homogeneous density per site

$|\Psi_f\rangle$

time evolution