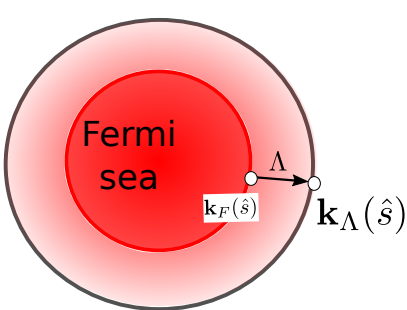


Unitary RG Algorithm



$$\mathbf{k}_\Lambda(\hat{s}) = \mathbf{k}_F(\hat{s}) + \Lambda \hat{s}$$



1. Effective H's are generated from UV to IR.

2. At each step a shell in UV at distance Λ is disentangled by the unitary map U .

$$\hat{H}$$

$$H' = U_1 H U_1^\dagger, [H', \hat{n}_1] = 0$$

$$H \rightarrow H', \hat{n}_1 \rightarrow \hat{n}_2, U_1 \rightarrow U_2$$

RG algorithm