

determine the dynamical mean field

$$\mathcal{G}_0 = \text{DMF}[G_{\text{loc}}]$$

$$\left(\mathcal{G}_0^{-1} = \Sigma_{\text{loc}} + G_{\text{loc}}^{-1} \text{ with } G_{\text{loc}}(i\omega_n) = \sum'_k \frac{1}{i\omega_n - \epsilon_k + \mu - \Sigma(i\omega_n)} \right)$$

self-consistency

$$G_{\text{loc}} \stackrel{!}{=} G^{\text{imp}}$$

solve the impurity problem

$$G^{\text{imp}} = \text{ImpuritySolver}[\mathcal{G}_0, U]$$