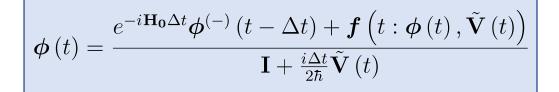


 $t \to t - \Delta t$





1. Converge $\phi(t)$ with V(t) fixed

2. Converge V(t) using converged $\phi(t)$

$$\langle \hat{a}_i^{\dagger} \hat{a}_j \rangle_{\psi} = \sqrt{n_i n_j} e^{i(\theta_j - \theta_i)}$$

$$\dot{n}_j = -i \sum_k T_{ki} (\langle \hat{a}_i^{\dagger} \hat{a}_k \rangle_{\psi} - \langle \hat{a}_k^{\dagger} \hat{a}_i \rangle_{\psi})$$

$$\Delta \boldsymbol{\theta} = \mathbf{J}^{-1}(\dot{\mathbf{n}} - \dot{\mathbf{n}}^{aim}) = -\mathbf{K}^{-1}(\dot{\mathbf{n}} - \dot{\mathbf{n}}^{aim})$$

Reset phases

Calculate orbitals and Potential for time t