

$$\hat{\phi}^{\text{QE}} \propto \frac{1}{\mathcal{R}^E} \left(\hat{\phi}(\hat{E}^{\text{WF}}, \hat{E}^{\text{IVF}}) \right)$$

$$\hat{\phi}^{\text{MAP}} \propto \hat{\phi}_0 \lambda \nabla_{\hat{\phi}} \mathcal{L}(\hat{E}^{\text{WF}}, \hat{E}^{\text{IVF}})$$

QE or
MAP?

QE

MAP

Conjugate
gradient
descent

$$\text{2.18} \quad \hat{E}^{\text{WF}} = F^{-1} D_{\hat{\phi}}^{\dagger} B^{\dagger} N^{-1} P^{\text{dat}}$$

$$D_{\hat{\phi}}^{\dagger} = \mathbb{1}$$

QE

QE or
MAP?

MAP

QE or MAP

$$\begin{array}{c} N^{-1} \\ \downarrow \\ N_b^{-1} \end{array}$$

$$F = C_{\ell}^{\text{len}} + B^{\dagger} N^{-1} B$$

$$\text{2.23} \quad D_{\hat{\phi}} : f_{1d}(f_{1e}(\hat{n})) = \hat{n}$$

until convergence

$$F = C_{\ell}^{\text{unl}} + D_{\hat{\phi}}^{\dagger} B^{\dagger} N^{-1} D_{\hat{\phi}} B$$