

Training set \mathcal{S}

Target \mathcal{C}^0

$\mathcal{C}_{\text{cliff}}^i$

$\ell(\langle \hat{\mathcal{O}} \rangle_{\text{noisy}}^0 | \lambda_{\text{eff}})$

$\langle \hat{\mathcal{O}} \rangle_{\text{noisy}}^i$

$\langle \hat{\mathcal{O}} \rangle^i$

$$\lambda_{\text{eff}} = \langle \lambda_{\mathcal{C}} \rangle_{\mathcal{S}} - \frac{\sigma^2}{1 - \langle \lambda_{\mathcal{C}} \rangle_{\mathcal{S}}}$$

$$\lambda_{\mathcal{C}}^i = 1 - \frac{\langle \hat{\mathcal{O}} \rangle_{\text{noisy}}^i}{\langle \hat{\mathcal{O}} \rangle^i}$$

Learn noise map $\ell(\cdot | \lambda_{\text{eff}})$

Noise parameters $\lambda_{\mathcal{C}}$ and σ