$$\frac{1}{2}d(x_{k+1}, \mathcal{X}^*_{\hat{f}_{k+1}})^2 \leq \underline{(1}$$

[RGB]0,0,60- $\alpha\mu')^k \mu_f(\frac{L_{\hat{f}}}{2}d(x_0, \mathcal{X}^*_{\hat{f}_0})^2 - \eta^* - \eta_0)$

$+ \frac{\alpha}{c\mu_f} \sum_{t=0}^{k}(1 - \alpha\mu')^{k-t} \hat{f}^*_t + \underline{\eta^*}$

[RGB]0,0,240+ $\eta_0 \mu_f \mu' \alpha.$