

$$line : \frac{1}{2}d(x_{k+1}, \mathcal{X}_{f_{k+1}}^*)^2 \leq \frac{(1}{2}$$

$$[RGB]0,0,60-\alpha\mu_f)^k\mu_f(\frac{L_f}{2}d(x_0,\mathcal{X}_{f_0}^*)^2-\eta^*-\eta_0)+\frac{\alpha}{2\mu_f}\sum_{t=0}^k(1-\alpha\mu_f)^{k-t}||\varepsilon_t||^2+\\ norm_s tr :$$