

$$f_{k+1}(x_{k+1})-f_{k+1}^*\leq (1-\alpha\mu_f)^k(f_0(x_0)-f_0^*)\quad +\frac{\alpha}{2}\sum_{l=0}^k(1-\alpha\mu_f)^k-t|\varepsilon_l|^2\quad +(\eta^*+\eta_0)\frac{1}{\alpha}$$

$$[{\rm RGB}]_{0,15,180}-(1-\alpha\mu_f)^k\mu\tau\alpha.$$