

Name	Algorithm						
	SVRG	S2GD	EMGD	SVR-GHT	Prox-SVRG	SVRG++	Katyusha
$\mathcal{E}$	$m^s = C$	$p(m^s) = \frac{(1 - \check{\mu} \eta)^{M-t}}{\sum_{t=1}^M (1 - \check{\mu} \eta)^{M-t}}$	$m^s = C$	$m^s = C$	$m^s = C$	$m^s = 2^s C$	$m^s = C$
$\mathcal{U}$	$\omega_t^s - \eta_t \gamma_t^s$	$\omega_t^s - \eta_t \gamma_t^s$	$\omega_t^s - \mathbb{B}_{\Delta_t} \eta_t \gamma_t^s$	$\mathbb{O}_k \omega_t^s - \eta_t \gamma_t^s$	$\omega_t^s - \eta_t \gamma_t^s$	$\omega_t^s - \eta_t \gamma_t^s$	$\omega_t^s - \eta_t \gamma_t^s$
$\mathcal{I}$	pick $\omega_j^s$ from $\{1,2,...,m^s\}$ randomly	$\omega_j^{m^s}$	$\omega_j^{m^s}$	$\omega_j^{m^s}$	$\sum_{j=1}^{m^s} \omega_j^s p(j)$	$\sum_{j=1}^{m^s} \omega_j^s p(j)$	$\begin{pmatrix} \tau_1 \\ \tau_2 \\ \tau_3 \end{pmatrix}^T \begin{pmatrix} z_0 - \alpha \sum_{i=1}^{m^s} \tilde{\gamma}_t^s \\ \omega^{s-1} \\ x_0 - \frac{1}{3L} \sum_{j=1}^{m^s} \tilde{\gamma}_t^s \end{pmatrix}$
	$\omega_j^{m^s}$						