Symbols	Meanings
i, j, l	counter variables
k	the number of sampled instances in SAMPLEVR
s	the counter of epochs
t	the counter of iterations in an epoch
i_t	the index of an instance which is sampled from training data randomly
α	the level of significance
δ	the rate of convergence
ϵ, ζ, ρ	positive real numbers
ν	the variance between the full gradient and its estimation
p	the number of dimensions
d_t	the Euclidean distance between the current parameter ω_t and its most recent snapshot
a_{ij}	the j_{th} entry of of d_i
b_{ij}	the j_{th} entry of of $\nabla f_i(\omega)$
$\check{\mu}$	the lower bound of the strongly-convex coefficient of loss function in S2GD
M	the maximal epoch size in S2GD
Δ_s	the decaying positive real number in EMGD
$\mathbb{B}_{\Delta_s}$	ω_{i_t} in EMGD is updated with $\parallel \omega_{i_{t+1}} - \omega_{i_t} \parallel \leq \Delta_s$
$\mathcal{H}_k$	the largest k elements of all dimensions of ω_{i_t} is kept and the other elements are set to be 0