Symbols	Meanings
i, j, l	the 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 $<x_{i_t}, y_{i_t}>$ which is sampled randomly
α	the level of significance
ρ	$[-\rho, \rho]$ is the $(1-\alpha)$-confidence interval
δ	the rate of convergence
p	the number of dimensions
$\omega, \tilde{\omega}$	ω is a parameter, and $\tilde{\omega}$ is its snapshot
d_t	$d_t = \parallel \omega_t - \tilde{\omega}_t \parallel^2$
a_{ij}	the j_{th} entry of of d_i
b_{ij}	the j_{th} entry of of $\nabla f_i(\omega)$
γ_t	the update gradient for training parameters ω_t with $t \in \{0, 1, ..., \omega_{m_s-1}\}$
m_s, m	the epoch size
η	the constant learning rate
ϵ, ζ	the positive real numbers
$\parallel \cdot \parallel$	the 2-norm of a vector
$g, \dot{g}$	the full gradient g and its estimation $\dot{g}$
ν	$\nu = \dot{g} - g$