

summary of tradeoffs for (ϵ, δ) -unlearning					
method	loss function properties	unlearning	accuracy	iterations for i th update	baseline iterations
PGD	SC, smooth	strong (Thm. 9)	$\frac{de^{-\mathcal{I}}}{\epsilon^2 n^2}$	\mathcal{I}	$\mathcal{I} + \log \left(\frac{\epsilon n}{\sqrt{d}} \right)$
	SC, smooth	strong, perfect (Thm. 28)	$\frac{de^{-\mathcal{I}}}{\epsilon^2 n^2}$	$\log i \cdot \mathcal{I}$ $\mathcal{I} \geq \log(d/\epsilon)$	$\mathcal{I} + \log \left(\frac{\epsilon n}{\sqrt{d}} \right)$
Regularized PGD	C, smooth	strong (Thm. 10)	$\left(\frac{\sqrt{d}}{\epsilon n \mathcal{I}} \right)^{\frac{2}{5}}$	\mathcal{I}	$\left(\frac{\epsilon n \mathcal{I}}{\sqrt{d}} \right)^{\frac{2}{5}}$
	C, smooth	weak (Thm. 30)	$\sqrt{\frac{\sqrt{d}}{\epsilon n \sqrt{\mathcal{I}}}}$	$i^2 \cdot \mathcal{I}$	$\sqrt{\frac{\epsilon n \sqrt{\mathcal{I}}}{\sqrt{d}}}$
Distributed PGD	SC, smooth, Lipschitz and bounded Hessian	strong (Thm. 14)	$\frac{de^{-\mathcal{I}n^{\frac{4-3\xi}{2}}}}{\epsilon^2 n^2} + \frac{1}{n^\xi}$	$\log i \cdot \mathcal{I}$	$\min \left\{ \log n, \mathcal{I}n^{\frac{4-3\xi}{2}} + \log \left(\frac{\epsilon n}{\sqrt{d}} \right) \right\}$

Table 1: (S)C: (strongly) convex, n : training dataset size, d : dimension, $\xi \in [1, 4/3]$ is a parameter.