

Table 1: Test results on CIFAR100 using ResNet-50 and Tiny-Imagenet using WideResnet-28-10, run for one seed. Best and second best results are in bold and underlined.

Dataset	CIFAR100				Tiny-ImageNet			
Loss funct.	AUCOC $\uparrow$	Acc. $\uparrow$	$\tau_0 \downarrow$ @ acc. 90% 95%		AUCOC $\uparrow$	Acc. $\uparrow$	$\tau_0 \downarrow$ @ acc. 65% 75%	
CE	91,10	73,69	34,72	49,42	74,03	49,29	34,74	52,28
FL ($\gamma=3$)	92,68	75,13	32,30	46,40	75,05	49,56	34,17	51,72
AdaFL53	92,65	74,5	32,01	45,78	75,36	49,49	33,77	50,76
CE+MMCE	92,55	74,75	31,08	44,53	74,12	48,56	35,83	52,48
FL+MMCE	92,46	74,47	31,69	46,63	74,79	49,32	34,57	52,12
CE+S-AvUC	92,63	74,12	31,02	44,83	74,14	49,13	35,00	53,17
FL+ S-AvUC	92,71	74,82	31,11	44,51	74,21	49,02	35,22	53,12
CE+S-ECE	92,57	74,27	31,38	45,4	75,62	49,91	31,88	49,55
FL+S-ECE	92,63	75,00	31,35	47,42	74,57	49,16	35,60	52,36
CE+AUCOCL	93,81	75,94	28,39	42,61	76,64	51,40	29,97	47,65
FL+AUCOCL	93,19	75,90	29,45	43,11	75,86	50,84	32,00	50,12

Table 2: Test AUROC(%) on OOD detection, training on CIFAR100 and testing on **a)** SVHN and **b)** CIFAR100-C (Gaussian noise) for the new detectors MaxLogit and EBM and on **c)** CIFAR100-C (all 15 perturbations) for MSP, ODIN, MaxLogit and EBM. Best and second best results are in bold and underlined.

Dataset	SVHN AUROC $\uparrow$		C100-C AUROC $\uparrow$		C100-c all corruptions AUROC $\uparrow$			
Loss funct.	MaxLogit	EBM	MaxLogit	EBM	MSP	ODIN	MaxLogit	EBM
CE	81,64	81,77	74,32	74,51	66,18	66,42	67,71	67,71
FL ($\gamma=3$)	77,06	76,48	73,43	72,83	66,57	66,36	66,69	66,42
AdaFL53	83,69	83,69	71,29	70,58	66,58	66,33	66,94	66,73
CE+MMCE	78,90	79,14	70,67	70,17	66,12	66,22	66,34	66,23
FL+MMCE	81,32	81,52	70,01	68,70	66,92	66,14	66,97	66,60
CE+S-AvUC	80,73	81,09	72,16	72,05	67,29	67,45	67,93	67,96
FL+ S-AvUC	83,17	83,67	69,53	68,51	66,78	66,00	67,38	67,24
CE+S-ECE	78,73	78,75	71,59	71,36	67,32	67,50	67,98	68,01
FL+S-ECE	85,69	84,61	71,51	70,26	67,34	65,38	67,38	67,78
CE+AUCOCL	86,56	87,10	78,02	78,30	67,77	67,77	69,51	69,69
FL+AUCOCL	84,52	84,83	75,14	74,68	68,00	66,83	69,52	69,46

Table 3: Preliminary results on ImageNet run with ResNet-50 for 15 epochs.

Loss funct.	AUCOC $\uparrow$	Acc. $\uparrow$	$\tau_0 \downarrow$ @ acc. 65% 75%	
CE	36,04	20,19	91,43	95,18
CE+AUCOCL	40,43	23,36	87,47	90,04

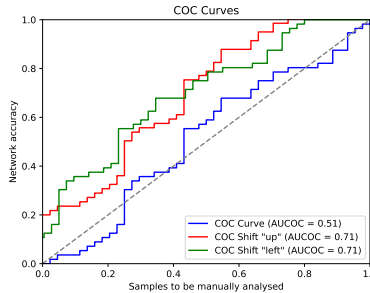


Figure 1: Toy example of possible AUCOC increase by shifting "up" or "left" the blue COC curve.