Table 3: Comparison with invariance regularization-based defense methods on CIFAR datasets. We report clean and robust accuracy (AutoAttack; AA). [1]2 Defense CIFAR10 CIFAR100 Clean AASum. Clean AASum.

	AT	83.77	42.42	126.19	55.82	19.50	75.32
81	TRADES	81.25	48.54	129.79	54.74	23.60	78.34
et-]	MART	82.15	47.83	129.98	54.54	26.04	80.58
Ž	LBGAT	85.00 ± 0.47	48.85 ± 0.46	133.86 ± 0.65	65.87 ± 0.74	23.19 ± 0.74	89.07 ± 0.73
ě	ADDECT*	86.63	46.14	132 77			

	ATT	06.06	16.06	122.22	50.02	22.04	02.77	_
	AR-AT+SWA (ours)	86.44 ± 0.05	50.28 ± 0.14	136.72 ± 0.19	67.17 ± 0.18	24.36 ± 0.20	91.53 ± 0.25	
	AR-AT (ours)	$\textbf{87.82}\pm\textbf{0.19}$	49.02 ± 0.47	$\textbf{136.84} \pm \textbf{0.33}$	$\textbf{67.51}\pm\textbf{0.13}$	23.38 ± 0.19	90.89 ± 0.29	
$^{ m Re}$	ARREST*	86.63	46.14	132.77	-	-	-	
SNS	LBGAT	85.00 ± 0.47	48.85 ± 0.46	$133.86\pm{\scriptstyle 0.65}$	65.87 ± 0.74	23.19 ± 0.74	89.07 ± 0.73	

Res	ARREST* AR-AT (ours)	$\frac{86.63}{87.82} \pm 0.19$	$46.14 \\ 49.02 \pm 0.47$	$\frac{132.77}{136.84} \pm 0.33$	- 67 51 ± 0.13	- 23 38 ± 0.10	-90.89 ± 0.29	
	AR-AT+SWA (ours)			136.72 ± 0.19				
	ΛT	86.06	16.26	122 22	50.82	23 04	92 77	

S	EBG/II	03.00 ± 0.47		133.00 ± 0.03	05.07 ± 0.74	23.17 ± 0.74	07.07 ± 0.73
ž	ARREST*	86.63	46.14	<u>132.77</u>	-	-	-
	AR-AT (ours) AR-AT+SWA (ours)			$ \begin{array}{c} 136.84 \pm 0.33 \\ \underline{136.72} \pm 0.19 \end{array} $			$\frac{90.89 \pm 0.29}{91.53 \pm 0.25}$

~~	ARREST	86.63	46.14	132.77	-	-	-
	AR-AT (ours)	$\textbf{87.82}\pm\textbf{0.19}$	49.02 ± 0.47	$\textbf{136.84} \pm \textbf{0.33}$	$\textbf{67.51} \pm \textbf{0.13}$	23.38 ± 0.19	90.89 ± 0.29
	AR-AT+SWA (ours)	86.44 ± 0.05	50.28 ± 0.14	136.72 ± 0.19	67.17 ± 0.18	$\underline{24.36} \pm 0.20$	91.53 ± 0.25
	ΔТ	86.06	46.26	132 32	50.83	23.94	83.77

AR-AT (ours) AR-AT+SWA (ours)			$ \begin{array}{r} 136.84 \pm 0.33 \\ 136.72 \pm 0.19 \end{array} $			
AT	86.06	46.26	132 32	59.83	23 94	83 77

_	AT	86.06	46.26	132.32	59.83	23.94	83.77	
.10	TRADES	84.33	51.75	136.08	57.61	26.88	84.49	

_	AT	86.06	46.26	132.32	59.83	23.94	83.77
-10	TRADES	84.33	<u>51.75</u>	136.08	57.61	26.88	84.49

 50.77 ± 0.50

 54.03 ± 0.31

 90.89 ± 0.22

 90.06 ± 0.08

AR-AT (ours)

AR-AT+SWA (ours)

-	TRADES	84.33	<u>51.75</u>	136.08	57.61	26.88	84.49	
34	MART	86.10	49.11	135.21	57.75	24.89	82.64	

34	MART	86.10	49.11	135.21	57.75	24.89	82.64
+	LRCAT	88 10 + 0.11	52 56 1 024	140.75 + 024	68 17 1056	26.02 + 0.22	05.00 + 0.64

\sim							
	LBGAT	$88.19 \pm \scriptstyle{0.11}$	52.56 ± 0.34	140.75 ± 0.34	68.17 ± 0.56	26.92 ± 0.32	95.09 ± 0.64
α	MANI	80.10	49.11	133.21	31.13	24.09	02.04

	LBGAT	88.19 ± 0.11	52.56 ± 0.34	140.75 ± 0.34	68.17 ± 0.56	26.92 ± 0.32	95.09 ± 0.64
X.	ARREST*	90.24	50.20	140.44	73.05	24.32	97.37

 141.66 ± 0.51

144.09 + 0.39

 72.51 ± 0.51

 72.37 ± 0.13

 24.18 ± 0.46

 27.31 ± 0.13

 96.70 ± 0.56

 99.69 ± 0.26