

Table 1: Marginal coverage and set size on different datasets, where we choose  $\alpha \in \{0.05, 0.075, 0.1, 0.15, 0.2\}$ . We see that ERAPS almost always maintains valid coverage with smaller set sizes.

$\alpha$	0.05		0.075		0.1		0.15		0.2	
<b>Pedestrian</b>	coverage	set size	coverage	set size	coverage	set size	coverage	set size	coverage	set size
ERAPS	0.94	1.69	0.92	1.18	0.90	1.04	0.85	0.96	0.81	0.91
SRAPS	0.95	4.09	0.94	3.25	0.92	3.00	0.89	2.02	0.82	1.17
SAPS	0.95	4.29	0.93	3.77	0.91	3.00	0.86	2.16	0.81	1.86
Naive	0.87	1.60	0.84	1.47	0.81	1.37	0.75	1.22	0.71	1.10