Table 1: Marginal Coverage and Volume Ratio (over 625 validation trials)

Algorithm	Marginal Coverage (%) ↑	Volume Ratio (relative to CLAPS) ↓	2D Area Ratio (relative to CLAPS) ↓	IoU vs MC (%) ↑
SS EKF	78.69	0.63	0.59	35.0
InEKF	82.74	0.47	0.57	41.8
SS PP + CP	89.88	2137.37	569.54	0.2
Lie PP + CP	89.88	2138.48	569.74	0.2
SS EKF + CP	91.17	2.87	1.60	30.4
InEKF + 2M	89.19	3.06	1.47	40.0
InEKF + MLE	90.26	2.80	1.38	42.3
CLAPS	89.98	**1.00**	**1.00**	48.4

Row coloring: Light green indicates coverage $\geq$ target $(1 - 0.10)$; Light red indicates coverage below target.

Volume Ratio: prediction region volume was divided by the *smallest*'s region volume.