ActMST Rebuttal

Table A1: Comparative analysis of baseline and ours. We report the localization recall at several thresholds on Cambridge Landmarks [6] and 7Scenes [24].

	Cambridge Landmarks				7Scenes			
	$(1m, 5°)$	$(1m, 10°)$	$(2m, 5°)$	$(2m, 10°)$	$(0.2m, 5°)$	$(0.2m, 10°)$	$(0.3m, 5°)$	$(0.3m, 10°)$
MST [16]	32.6	35.8	60.4	68.2	28.8	50.2	34.4	63.5
+Ours	**35.8**	**38.5**	**65.5**	**72.7**	**32.6**	**52.6**	**39.5**	**67.1**

Table A2: QKA loss applied to other task, temporal action detection. We report the mean average precision in different IoU thresholds on ActivityNet-v1.3.

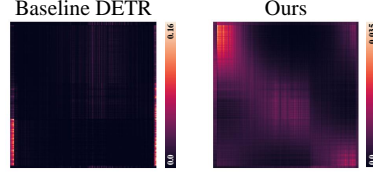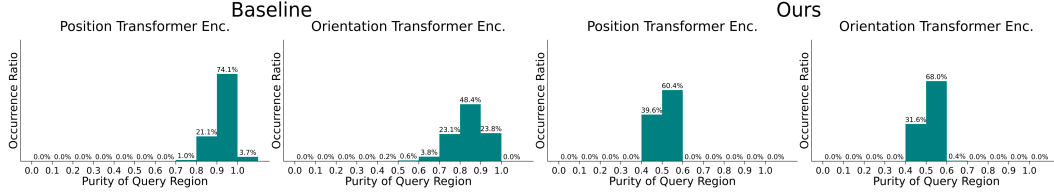|	0.5	0.75	0.95	Avg.
Baseline DETR	48.83	30.96	8.11	31.34
+QKA	**51.90**	**33.55**	**8.50**	**33.67**
Self-DETR [34]	52.25	33.67	8.40	33.76
+QKA	**52.63**	**34.02**	**8.49**	**34.18**

Figure A1: Encoder SA from baseline DETR and ours.

Figure A2: Fine-level Histograms.

Table A3: Required number of model parameters of recent APR methods.

		# of Scenes			
		4 [6]	7 [24]	10-	100-
Single-scene	E-PoseNet [13]	61.56M	107.73M	153.9M	1539M
APR method	DFNet [10]	73.96M	129.43M	184.9M	1849M
Multi-scene	MST [16]	18.53M	18.53M	18.53M	18.58M
APR method	+Ours	18.53M	18.53M	18.53M	18.58M

Table A4: Comparative analysis of recent single-scene and multi-scene APR methods and ours. We report the average of the median position/orientation errors. * denotes that NeRF-W is employed for each scene, but not additional unlabed data.

		Outdoor [6]	Indoor [24]
Single-scene	E-PoseNet [13]	1.00m/2.55°	0.17m/7.32°
APR method	DFNet* [10]	1.19m/2.90°	0.12m/3.71°
Multi-scene	MST [16]	1.28m/2.73°	0.18m/7.28°
APR method	+Ours	1.19m/2.29°	0.17m/6.64°

Table A5: Comparative analysis of σReparam [19] and ours. We report the average of the median position/orientation errors.

	Outdoor [6]	Indoor [24]
MST+Fixed PE	1.29m/2.46°	0.18m/6.80°
+σReparam [19]	1.25m/2.56°	0.19m/6.81°
+QKA	**1.19**m/**2.29°**	**0.17**m/**6.64°**

Table A6: Ablation on our solutions. We report the average of the median position/orientation errors.

	Outdoor [6]	Indoor [24]
MST [16]	1.28m/2.73°	0.18m/7.28°
MST+Fixed PE	1.29m/2.46°	0.18m/6.80°
MST+QKA	1.22m/2.68°	0.18m/7.09°
MST+Fixed PE+QKA	**1.19**m/**2.29°**	**0.17**m/**6.64°**