

Supplementary Material of LGS: A Light-weight 4D Gaussian Splatting for Efficient Surgical Scene Reconstruction

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1 Additional Experimental Results

Table 1. Experimental results on ENDONERF with the used two frames in main results respectively: Pulling and Cutting.

Dataset	Method	Size(↓)	FPS(↑)	SSIM(↑)	PSNR(↑)	LPIPS(↓)
Pulling	EndoNeRF	13.0MB	0.035	0.935	35.681	0.099
	EndoSurf	20.0MB	0.038	0.956	36.710	0.079
	LerPlane-9k	274MB	0.840	0.936	35.672	0.080
	LerPlane-32k	274MB	0.799	0.956	38.044	0.045
	EndoGS	328MB	108.9	0.965	37.910	0.036
	EndoGaussian	334MB	165.6	0.959	37.423	0.061
	LGS (Ours)	25.0MB	186.7	0.959	38.233	0.074
Cutting	EndoNeRF	13MB	0.035	0.931	35.442	0.078
	EndoSurf	20.0MB	0.041	0.953	36.340	0.069
	LerPlane-9k	274MB	0.982	0.916	34.303	0.080
	LerPlane-32k	274MB	0.945	0.943	36.724	0.049
	EndoGS	318MB	74.60	0.962	36.676	0.054
	EndoGaussian	334MB	167.38	0.962	38.129	0.045
	LGS (Ours)	25.0MB	189.91	0.951	36.710	0.063

* Equal contribution