Symbol	Meaning
$X^{\text{ref}} = \{x_i\}_{i=1}^{N}$	Reference images
$K^{\text{ref}} = \{k_i\}_{i=1}^{N}$	Intrinsics of X^{ref}
$\hat{K}^{\text{ref}}$	Estimated intrinsics of X^{ref}
$\hat{K}$	Estimated shared intrinsics of X^{ref}
$\Pi^{\text{ref}} = \{\pi_i\}_{i=1}^{N}$	Extrinsics of X^{ref}
Π^{nov}	Extrinsics of viewpoints in repair path
$\hat{\Pi}^{\text{ref}}$	Estimated extrinsics of X^{ref}
$M^{\text{ref}} = \{m_i\}_{i=1}^{N}$	Masks of X^{ref}
μ	Center location of Gaussian
q	Rotation quaternion of Gaussian
s	Scale vector of Gaussian
σ	Opacity of Gaussian
sh	Spherical harmonic coefficients of Gaussian
$\mathcal{G}_c$	Coarse 3D Gaussians
$\mathcal{R}$	Diffusion based Gaussian repair model
$\mathcal{E}$	Latent diffusion encoder of $\mathcal{R}$
$\mathcal{D}$	Latent diffusion decoder of $\mathcal{R}$
x'	Degraded rendering
$\hat{x}$	Image repaired by $\mathcal{R}$
ϵ_s	3D Noise added to attributes of $\mathcal{G}_c$
ϵ	2D Gaussian noise for fine-tuning
ϵ_θ	2D Noise predicted by $\mathcal{R}$
c^{tex}	Object-specific language prompt
$\mathcal{P}$	Coarse point cloud predicted by DUSt3R