

Mip-Splatting

Alias-free 3D Gaussian Splatting

Zehao Yu^{1,2} Anpei Chen^{1,2} Binbin Huang³ Torsten Sattler⁴ Andreas Geiger^{1,2}

¹University of Tübingen ²Tübingen AI Center

³ShanghaiTech University ⁴Czech Technical University in Prague

<https://github.com/autonomousvision/mip-splatting>

Motivation



3DGS

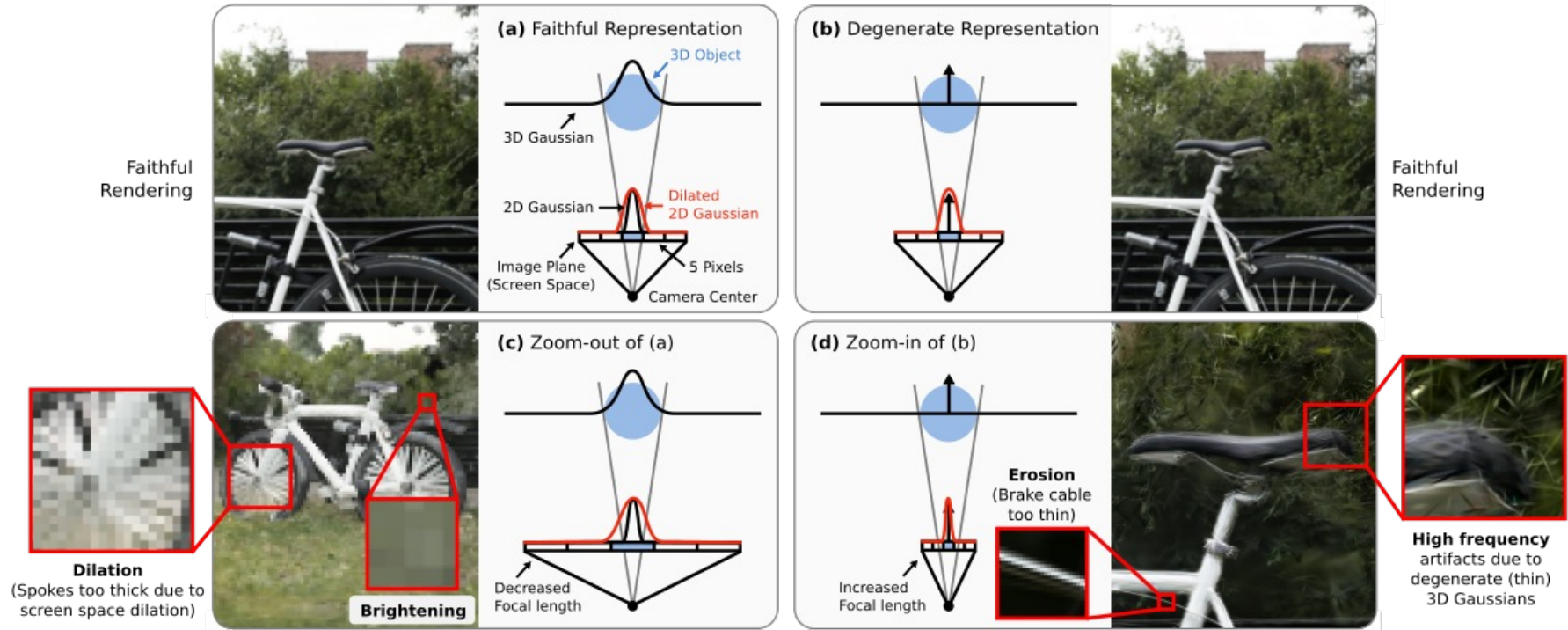
Focal Length: 0.12



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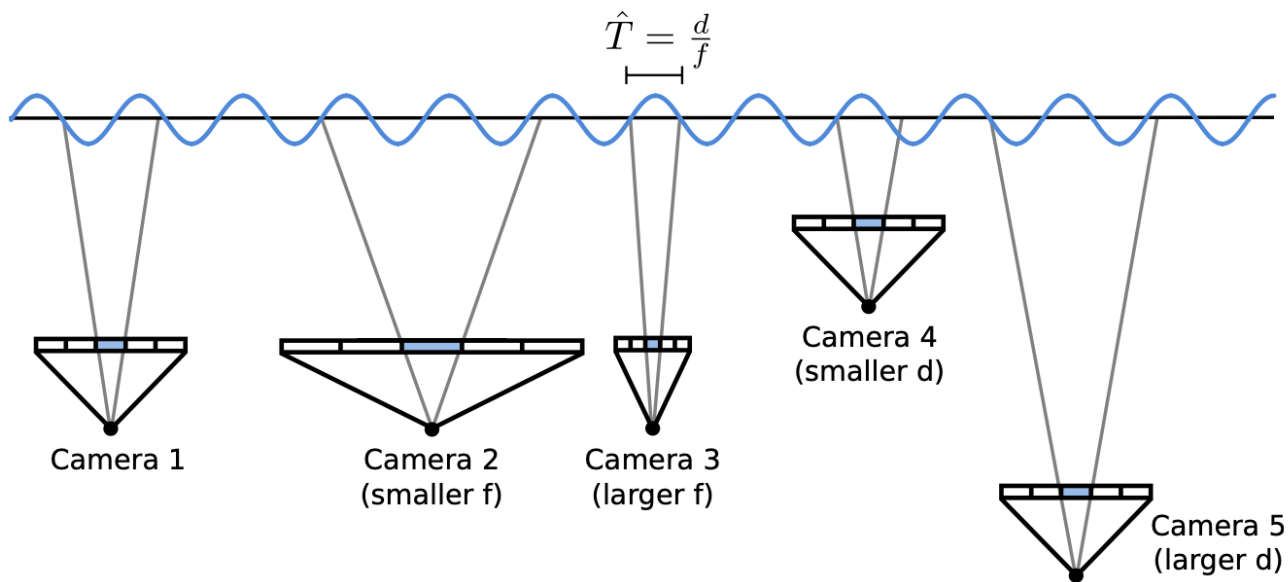
Ours

Motivation



Mip-Splatting - 3D Smoothing filter

1. applied in world space before projection
2. determine the size by the training images
3. It can be fused to the representation after training



Results



3DGS



Ours

Results

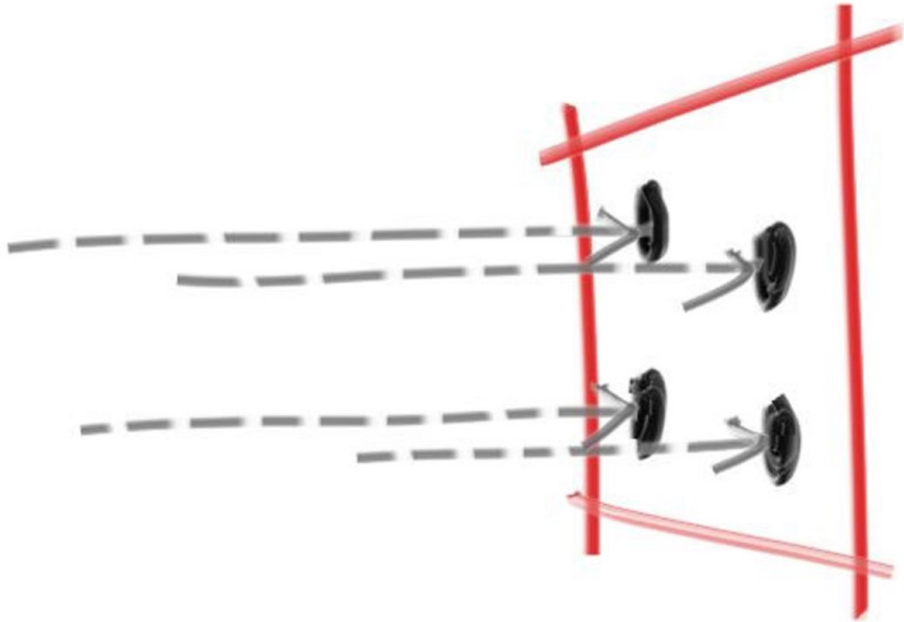


Ours w/o 2D Mip Filter

Ours

Mip-Splatting – 2D Mip Filter

- using 2D Gaussian filter to simulate the physical box filter in imaging process



Results



Ours w/o 2D Mip Filter

Ours

Online Viewer

<https://niujinshuchong.github.io/mip-splatting-demo/>