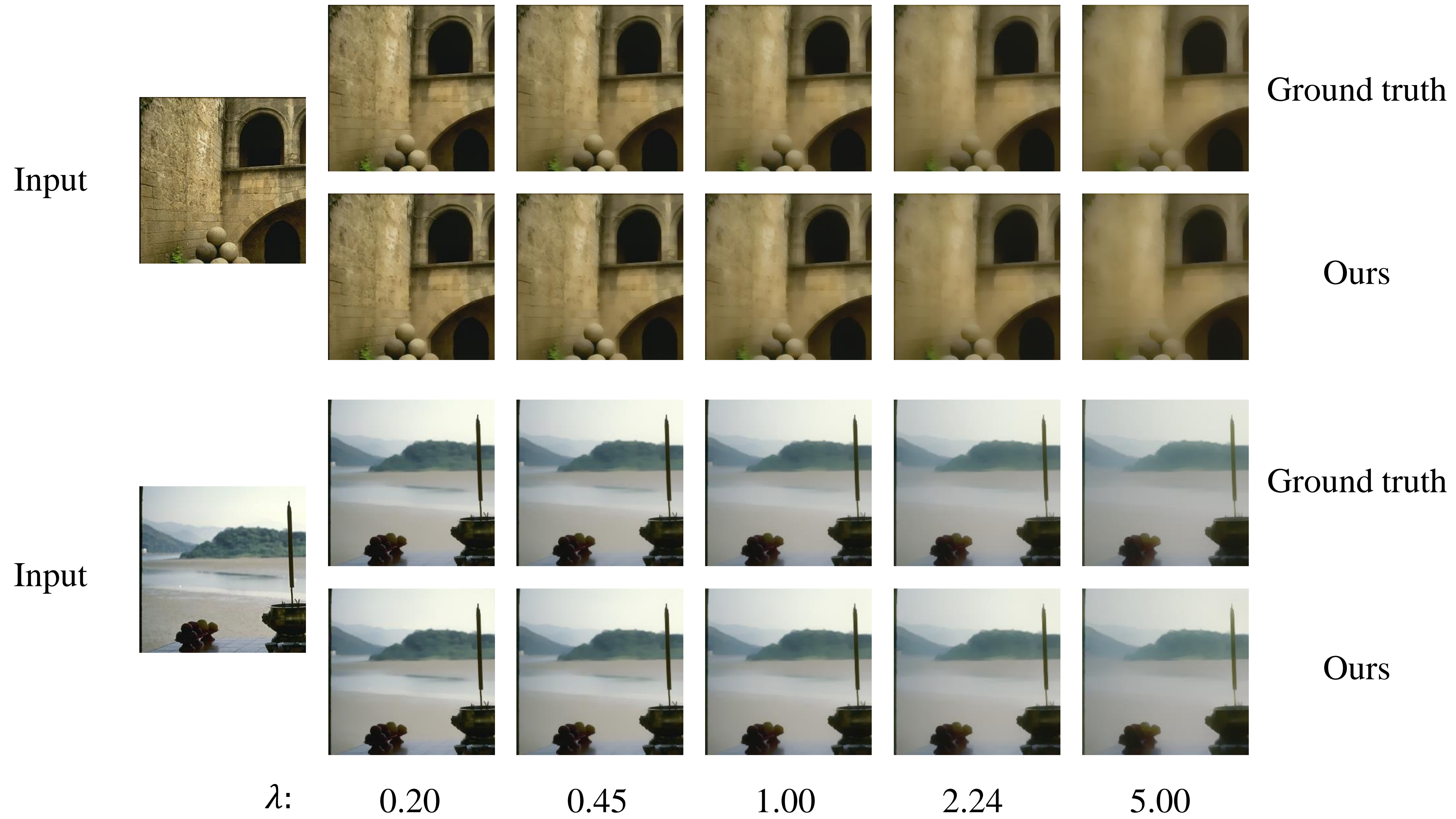


Supplementary Material

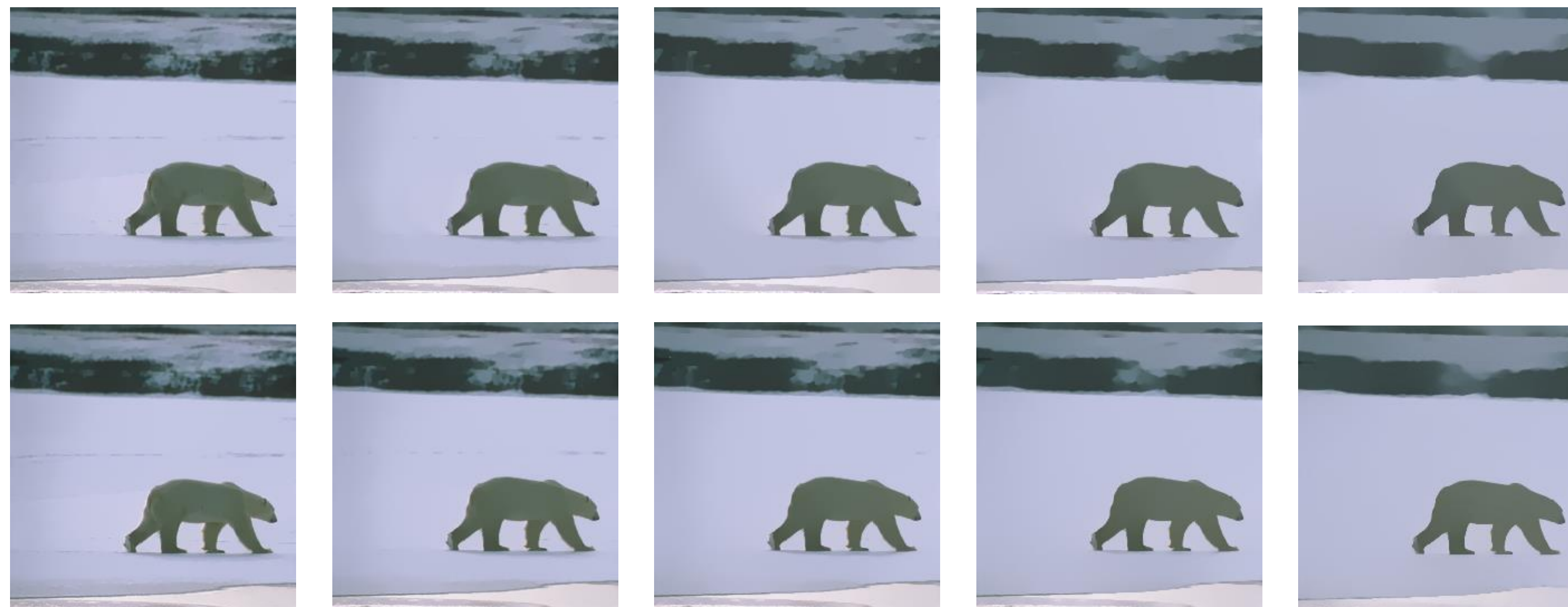
Submission 1072

WLS Smoothing



L0 Smoothing

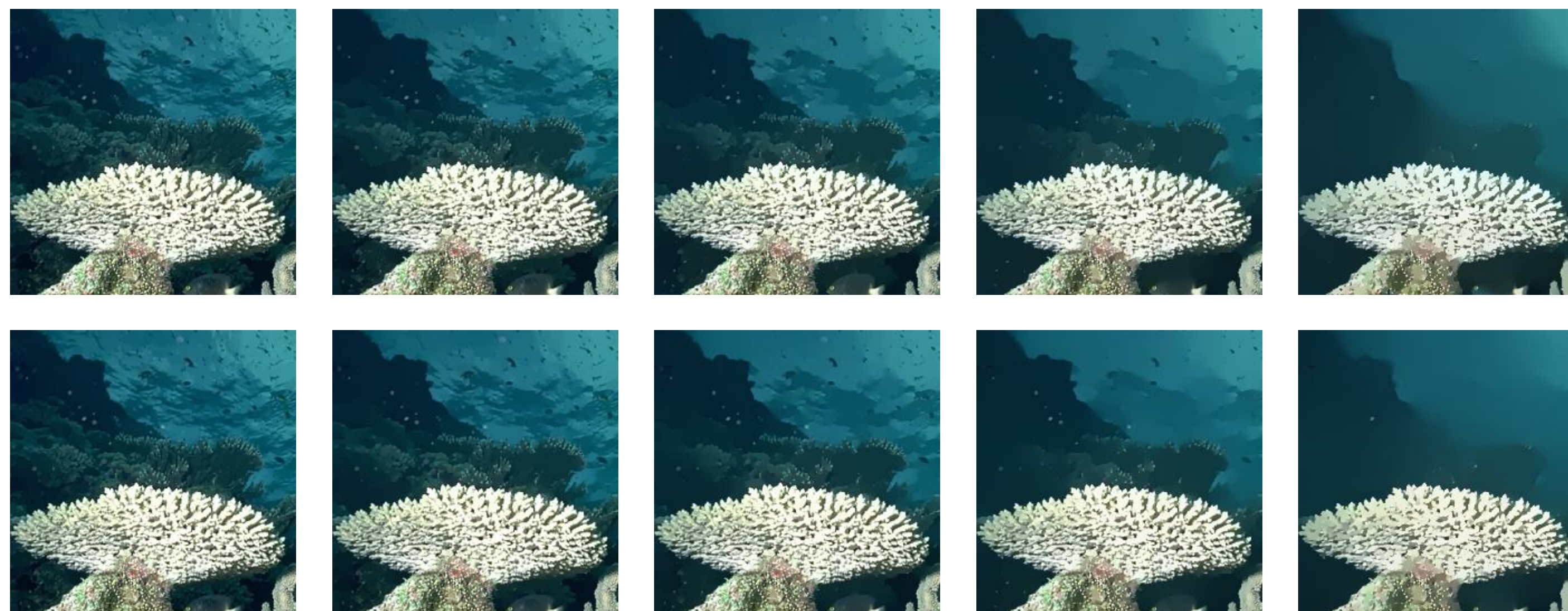
Input



Ground truth

Ours

Input



Ground truth

Ours

λ :

0.002

0.005

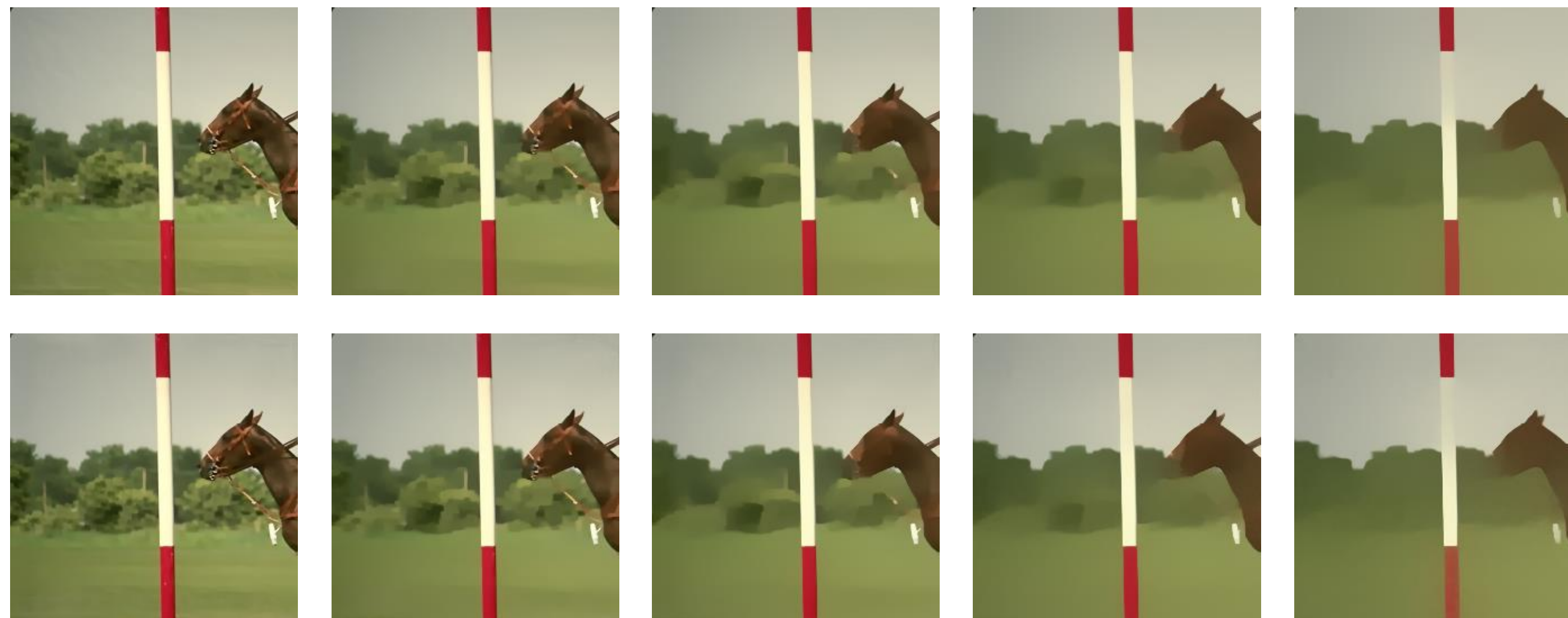
0.01

0.02

0.05

RTV Smoothing

Input



Ground truth

Ours

Input



Ground truth

Ours

λ :

0.0020

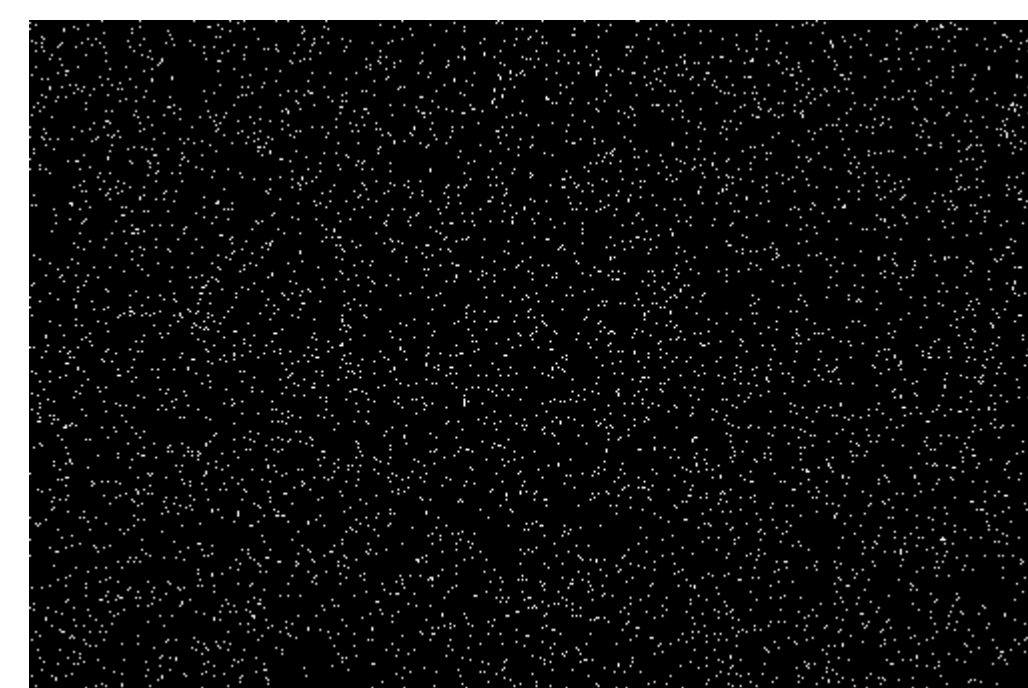
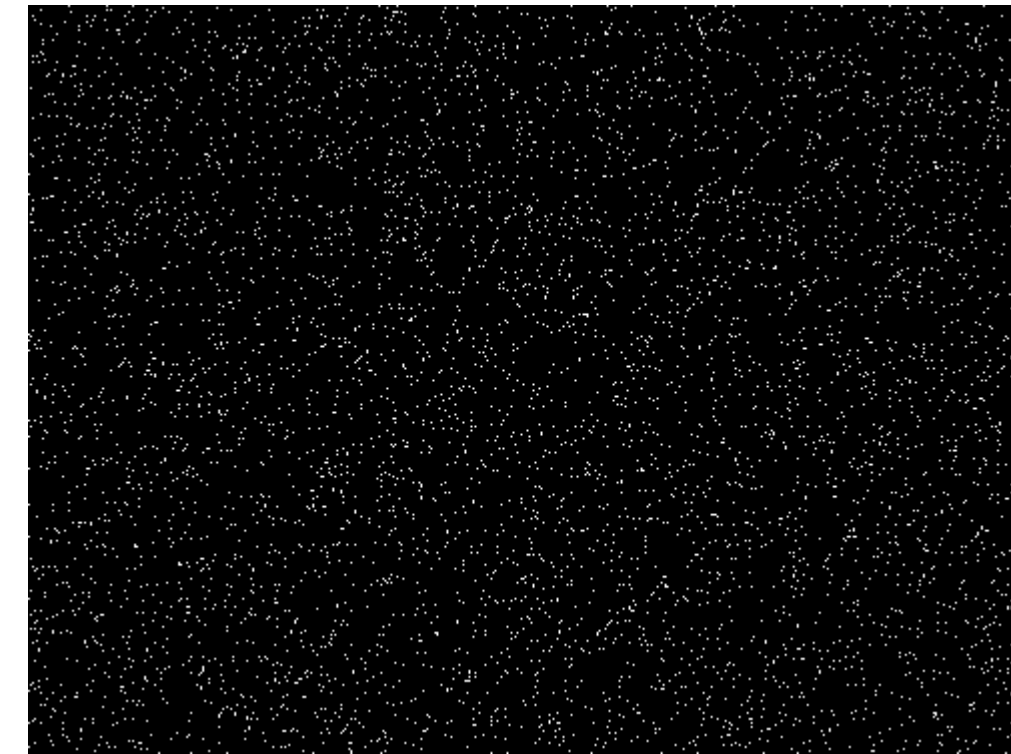
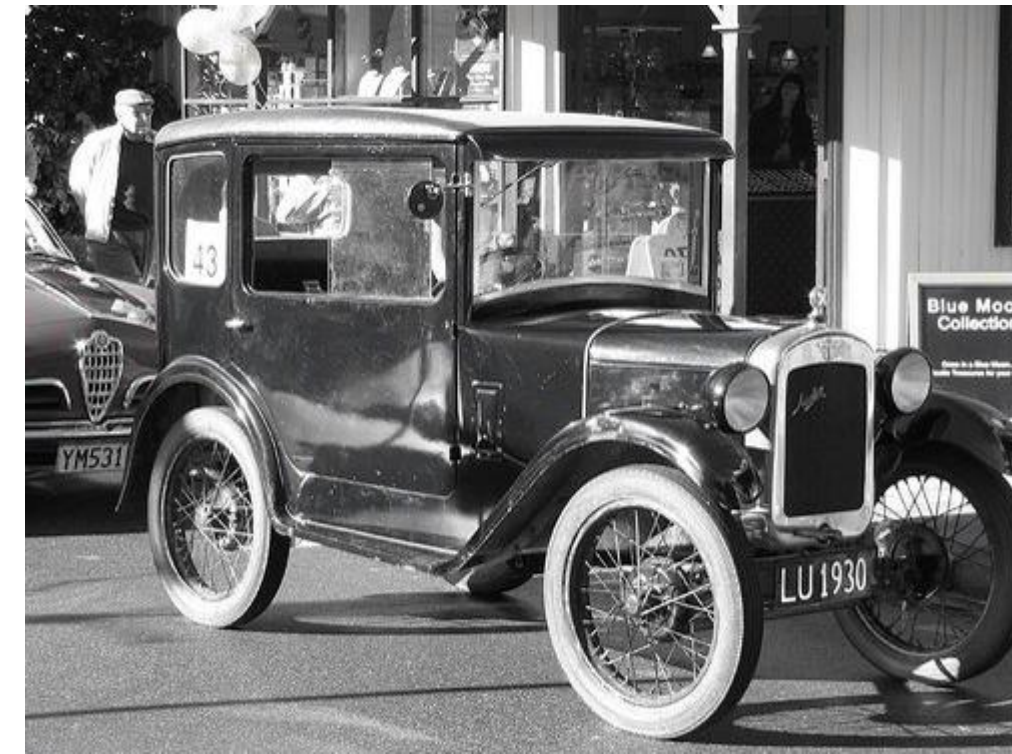
0.0045

0.0100

0.0224

0.0500

Color Interpolation



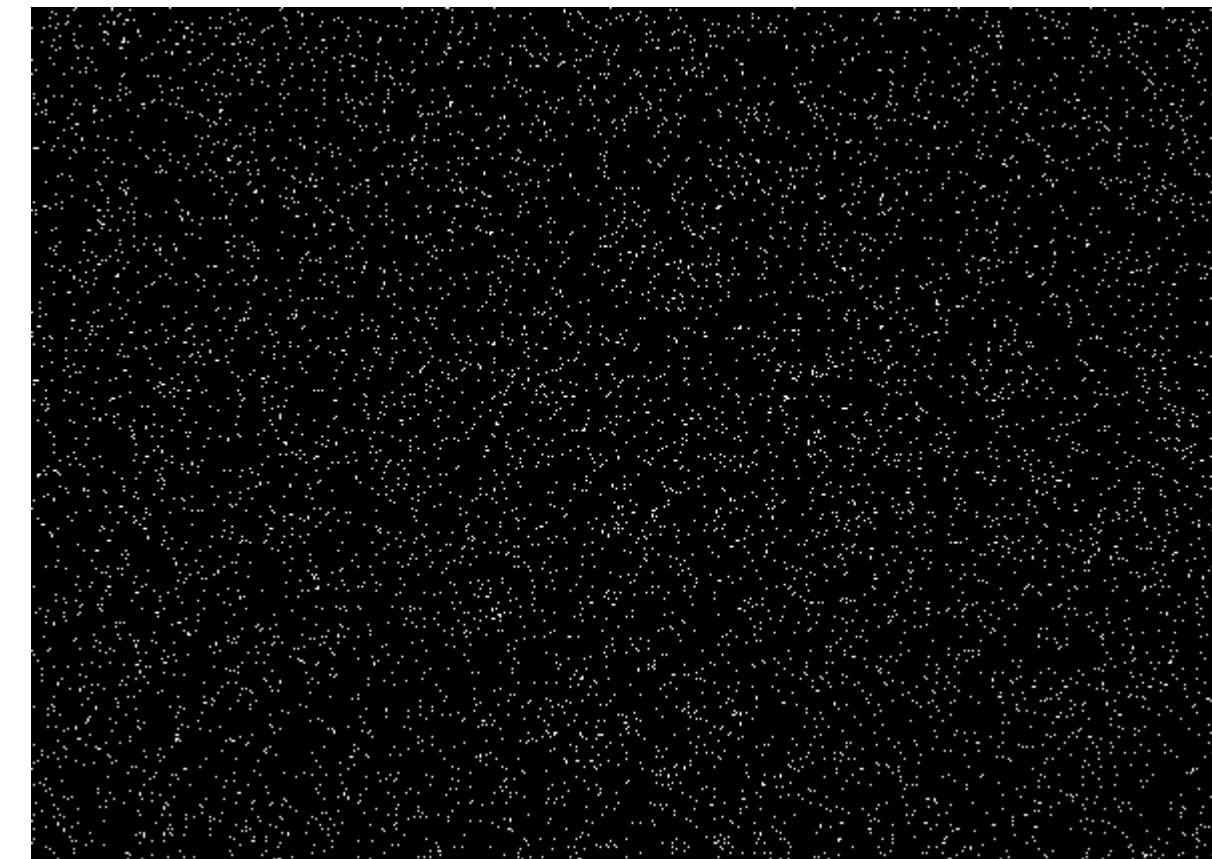
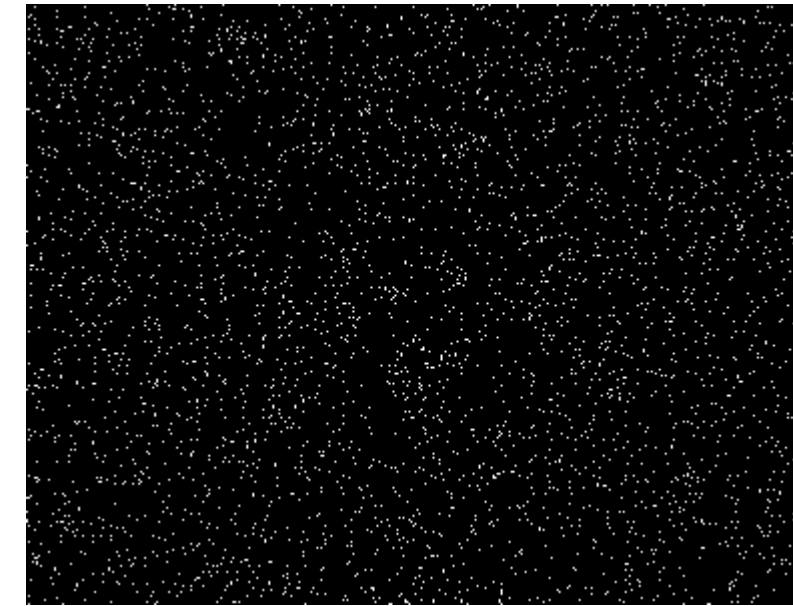
Original image

Gray image

Random sample points

Recovered

Color Interpolation



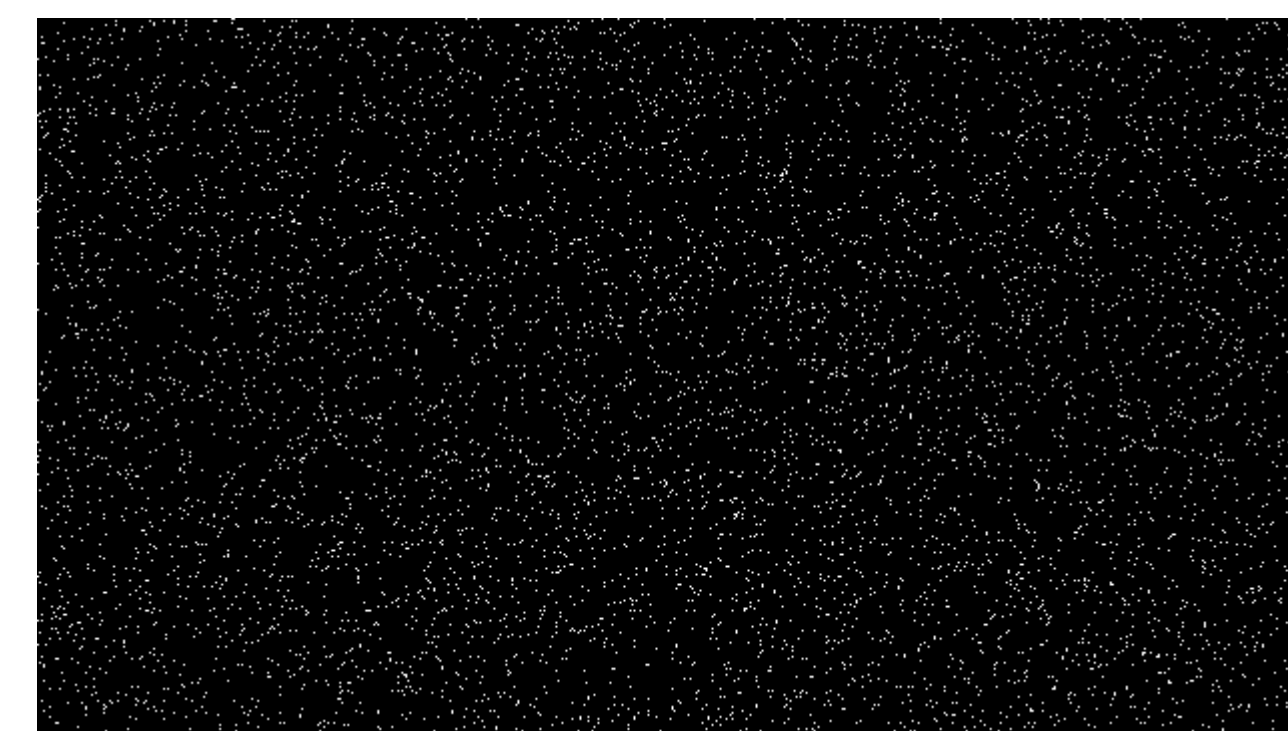
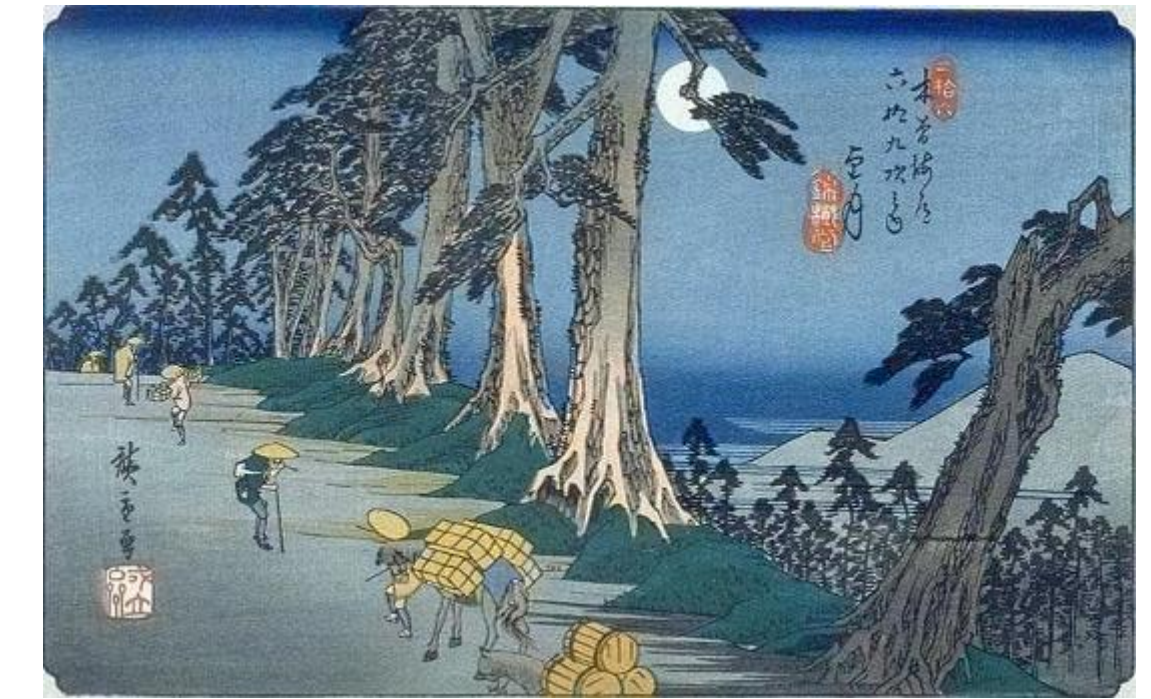
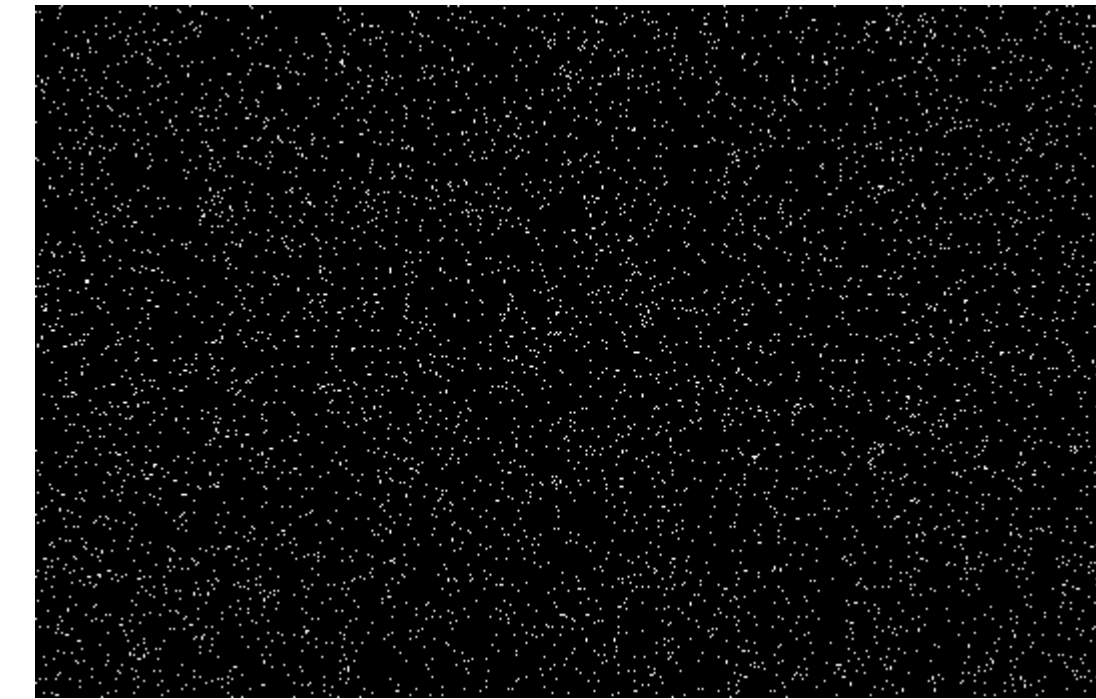
Original image

Gray image

Random sample points

Recovered

Color Interpolation



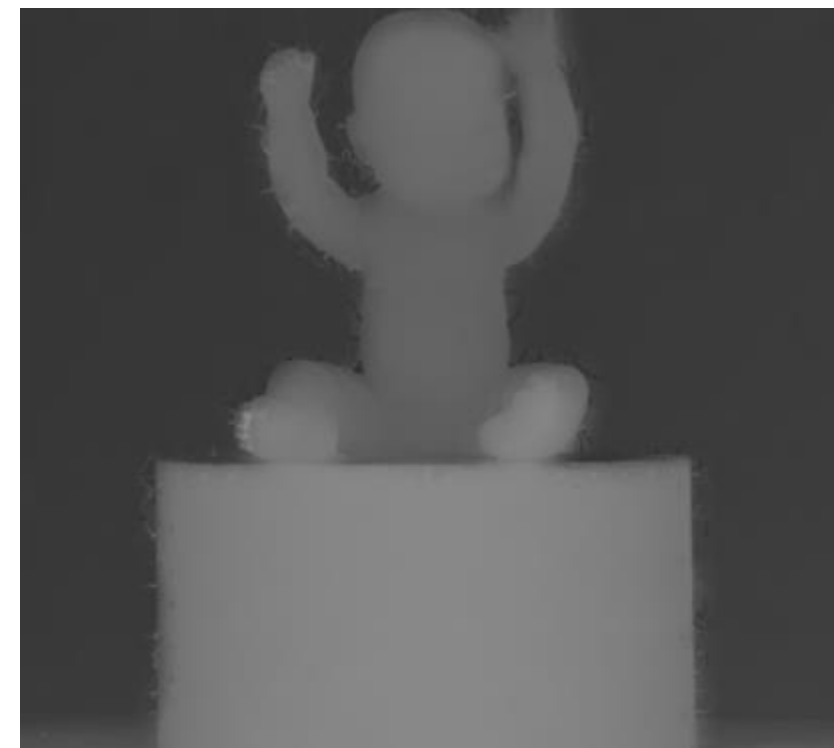
Original image

Gray image

Random sample points

Recovered

Depth Map Upsampling ($4\times$)



RMSE:

2.88

4.50

1.81

2.14



RMSE:

2.14

3.22

1.27

1.40

Input RGB

Ground truth

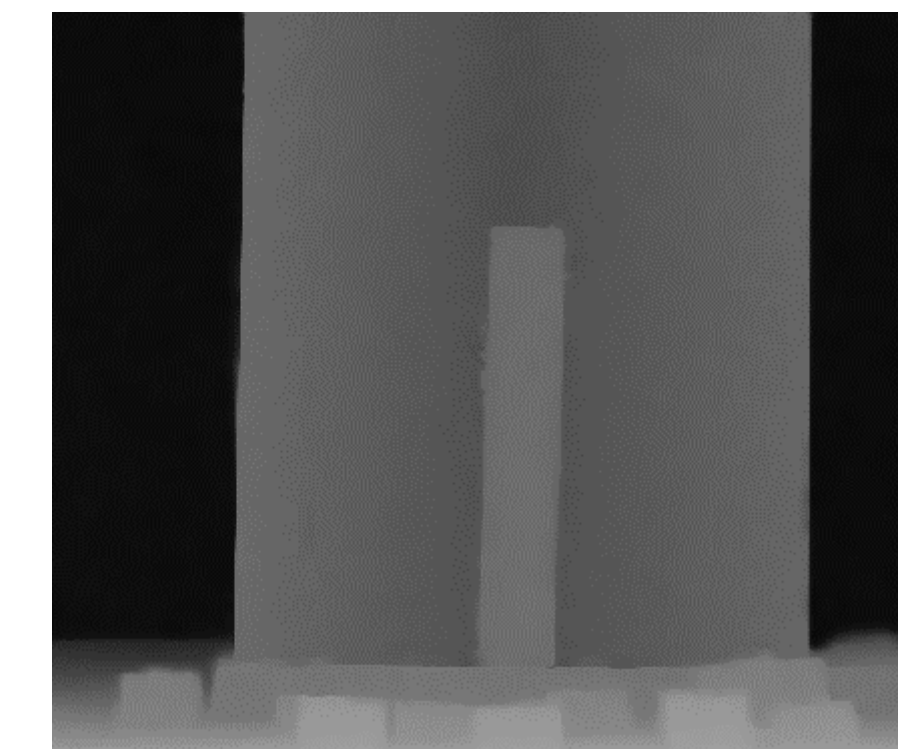
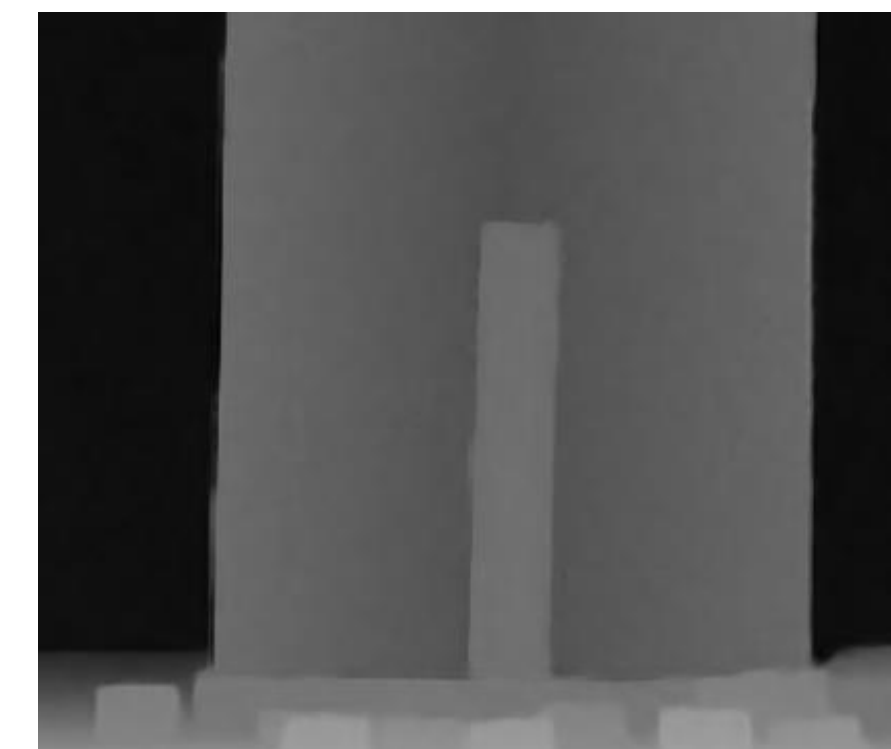
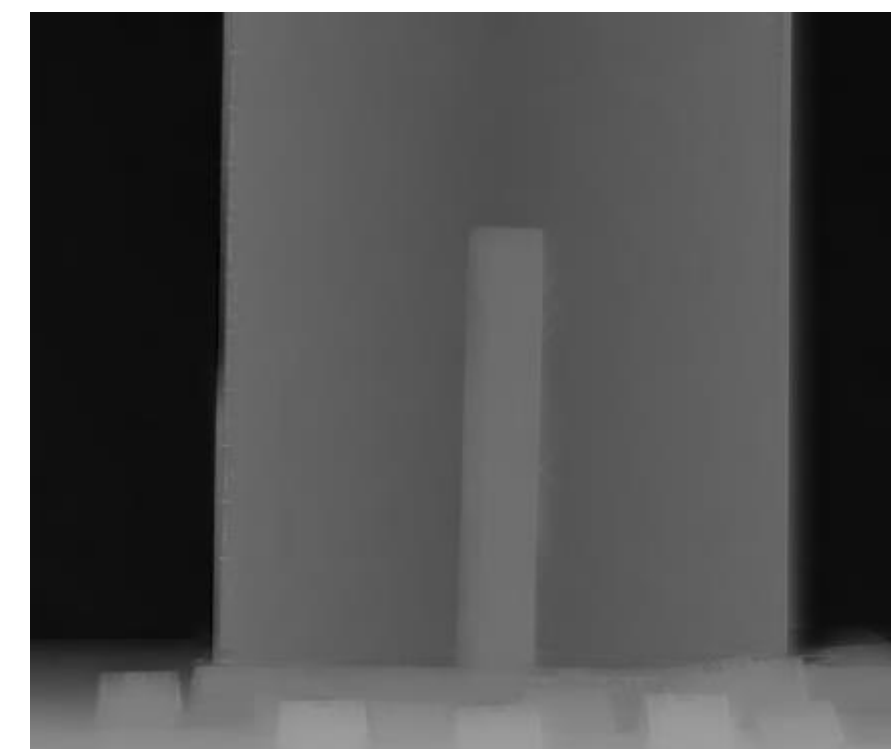
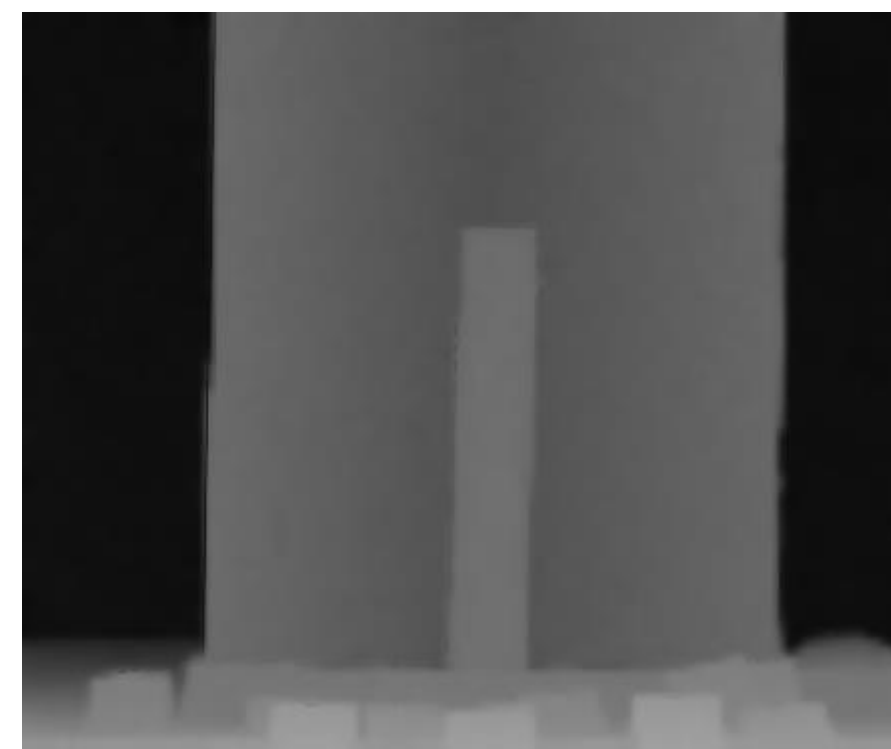
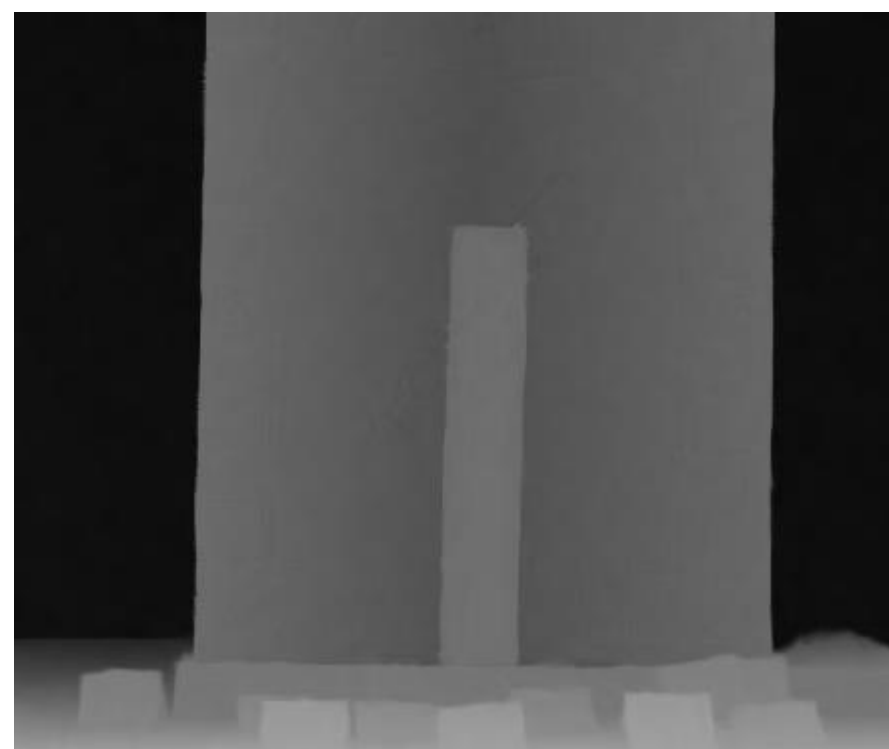
Bilateral filter

Guided filter

Deep joint filter

Ours

Depth Map Upsampling ($4\times$)



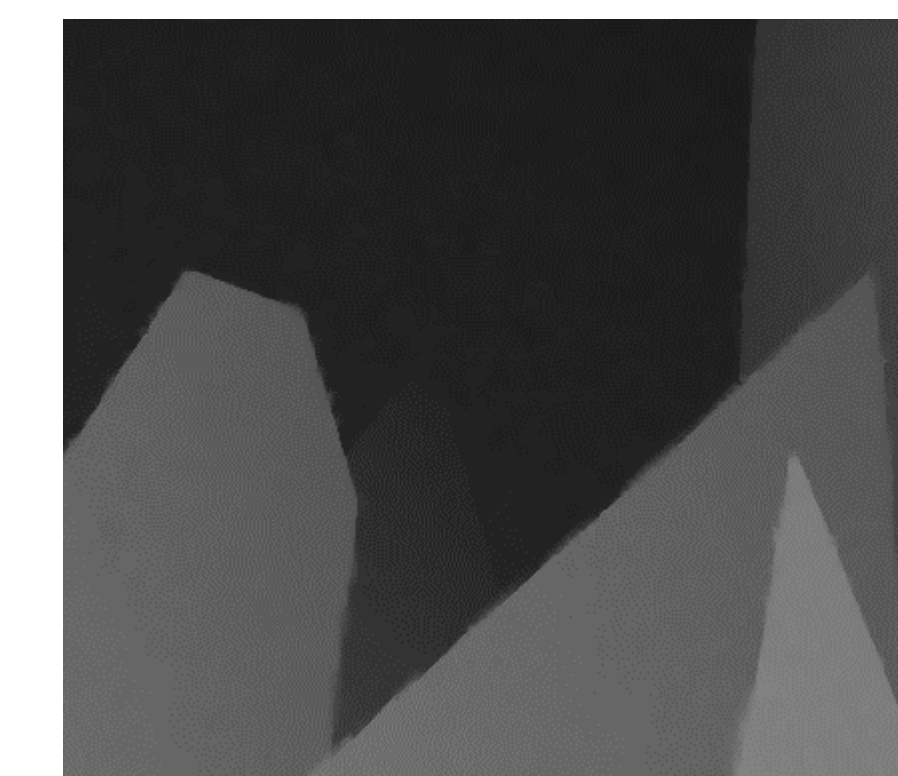
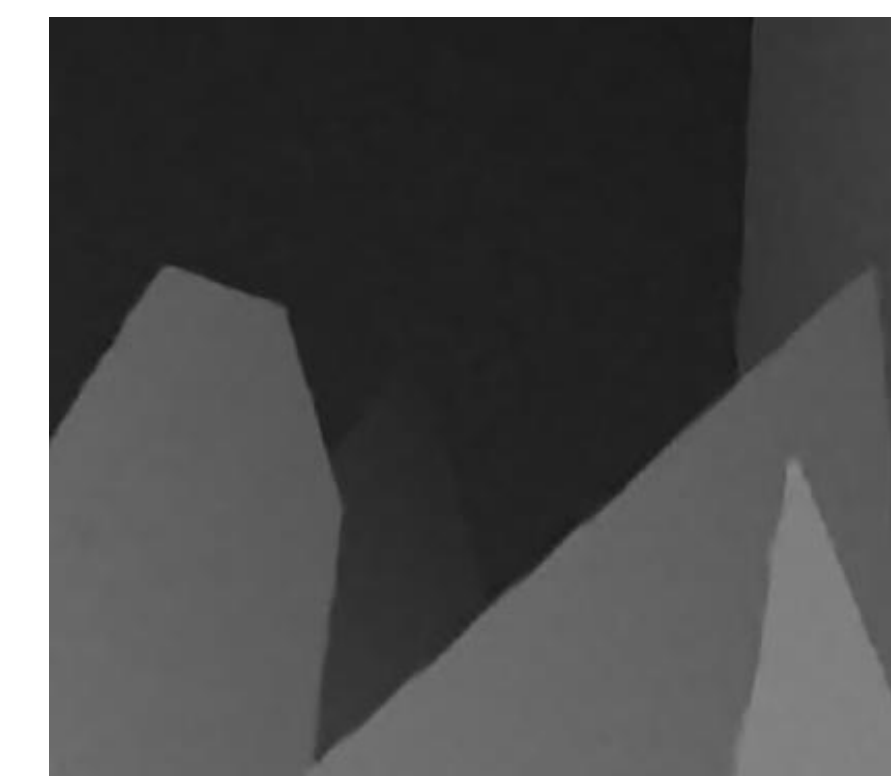
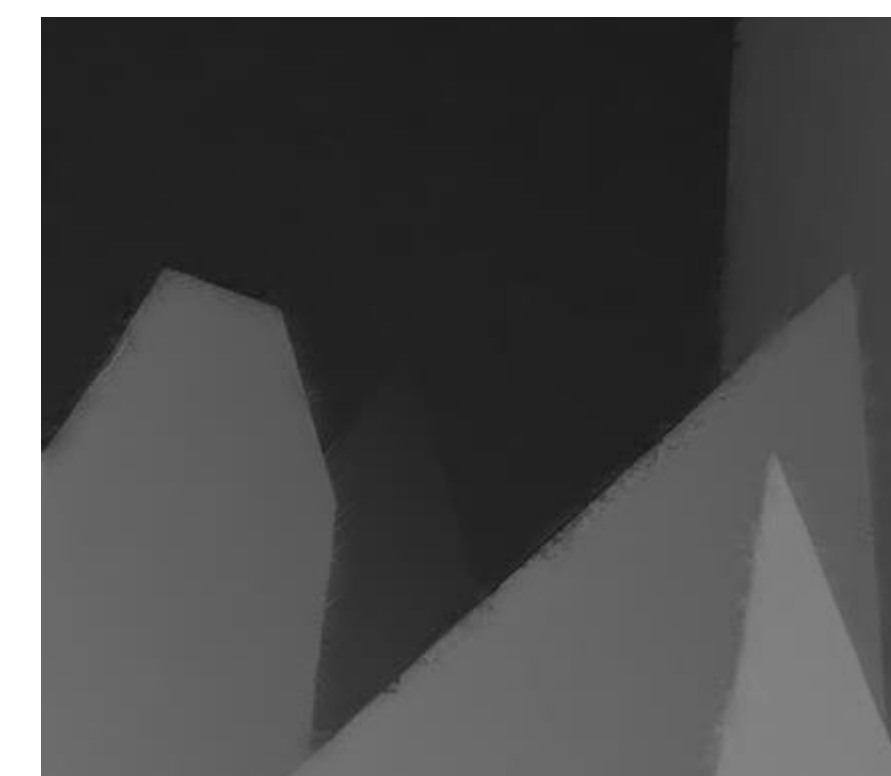
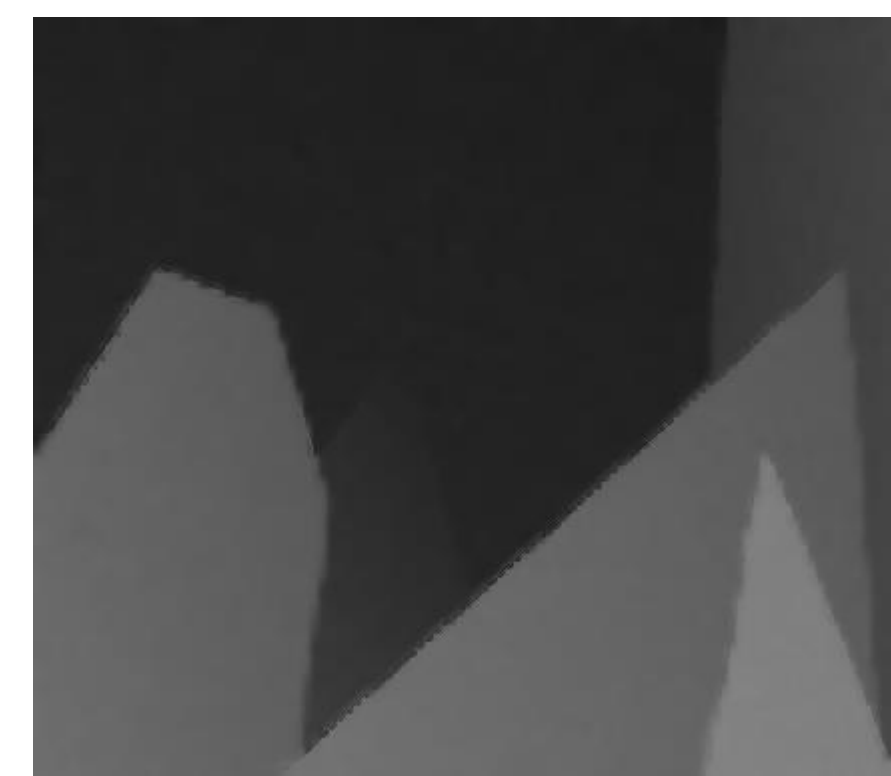
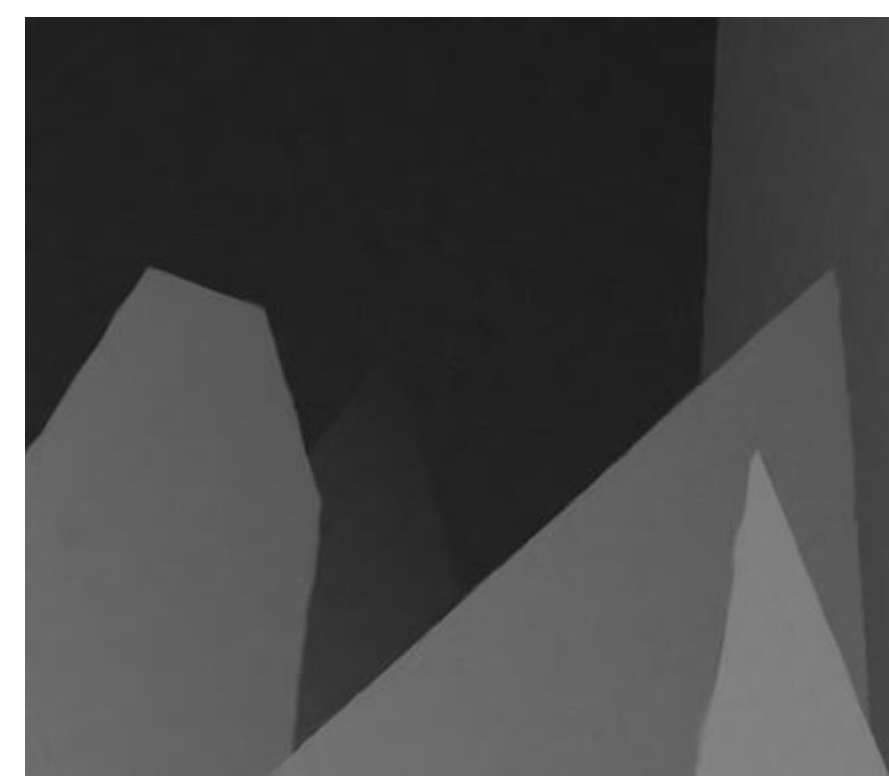
RMSE:

5.26

7.62

3.30

3.15



RMSE:

3.11

4.09

1.68

2.11

Input RGB

Ground truth

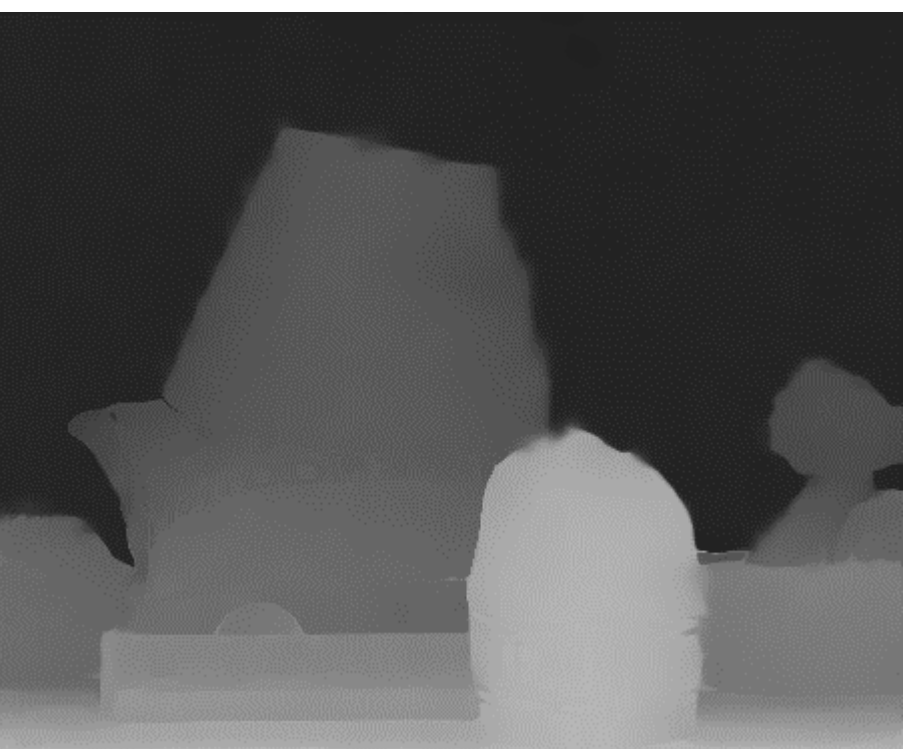
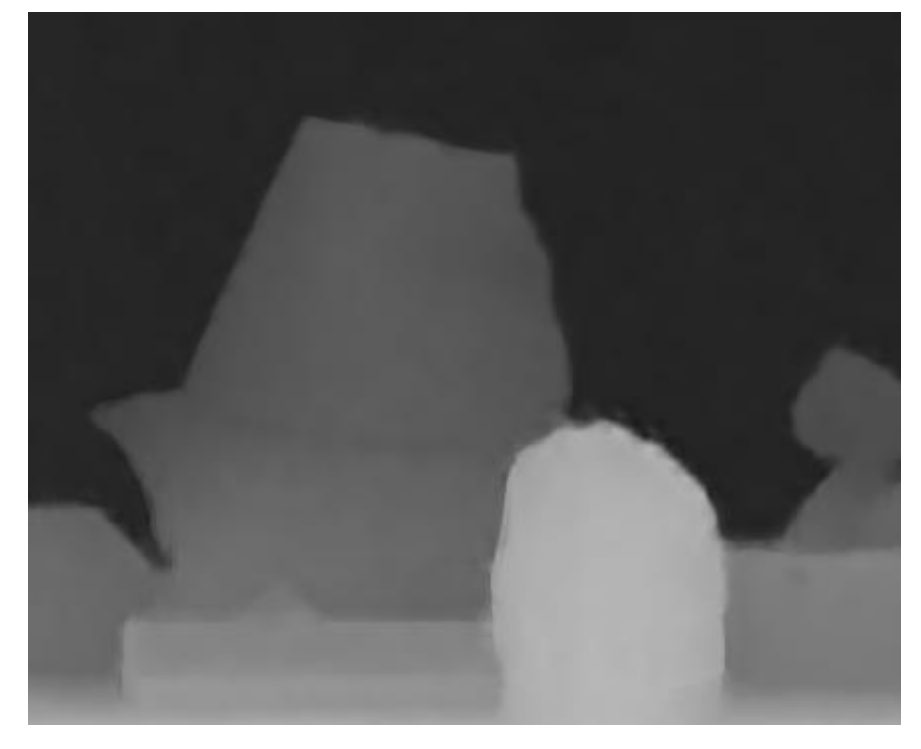
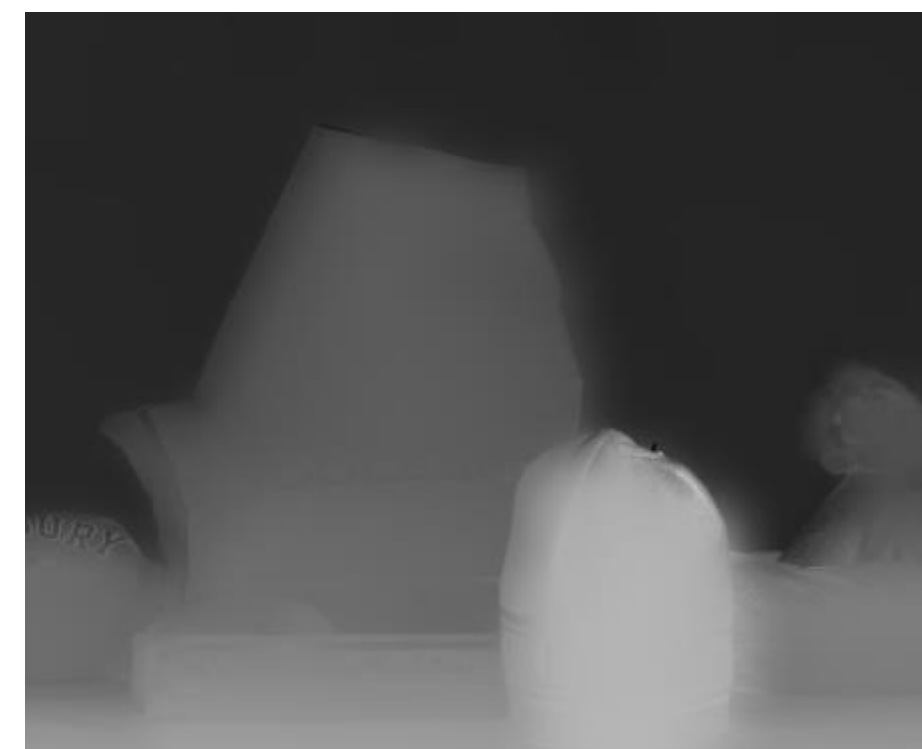
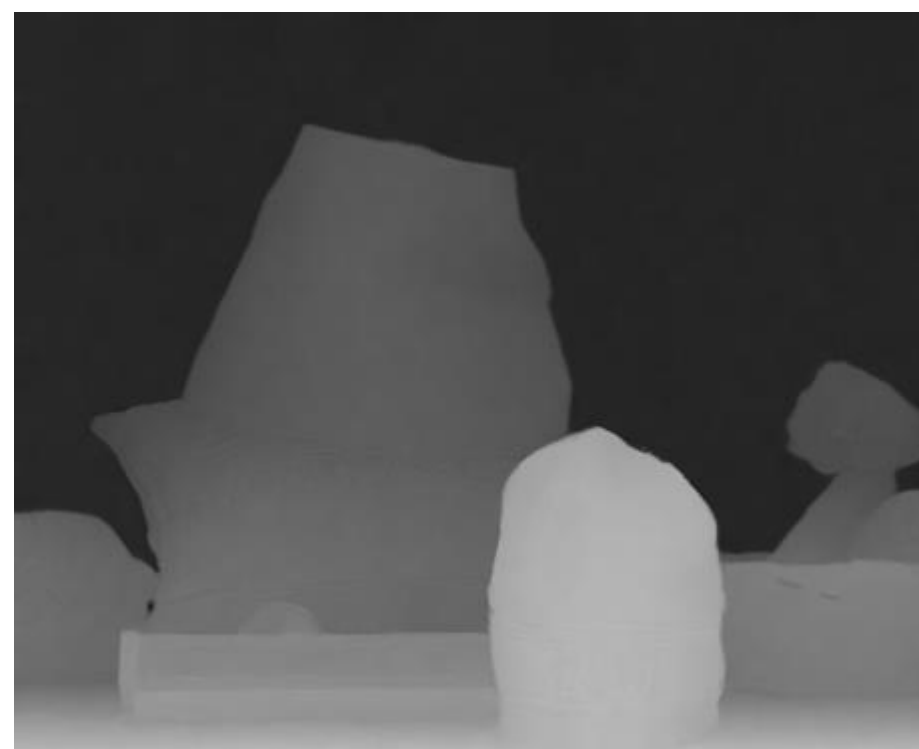
Bilateral filter

Guided filter

Deep joint filter

Ours

Depth Map Upsampling ($8\times$)



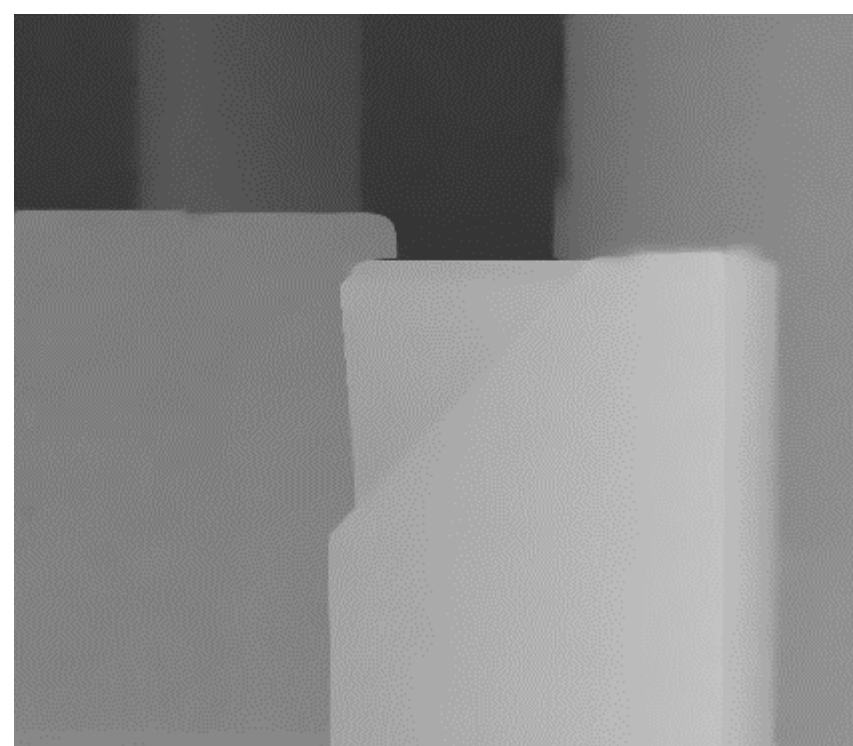
RMSE:

5.84

8.43

3.81

3.08



RMSE:

5.56

7.51

2.78

2.15

Input RGB

Ground truth

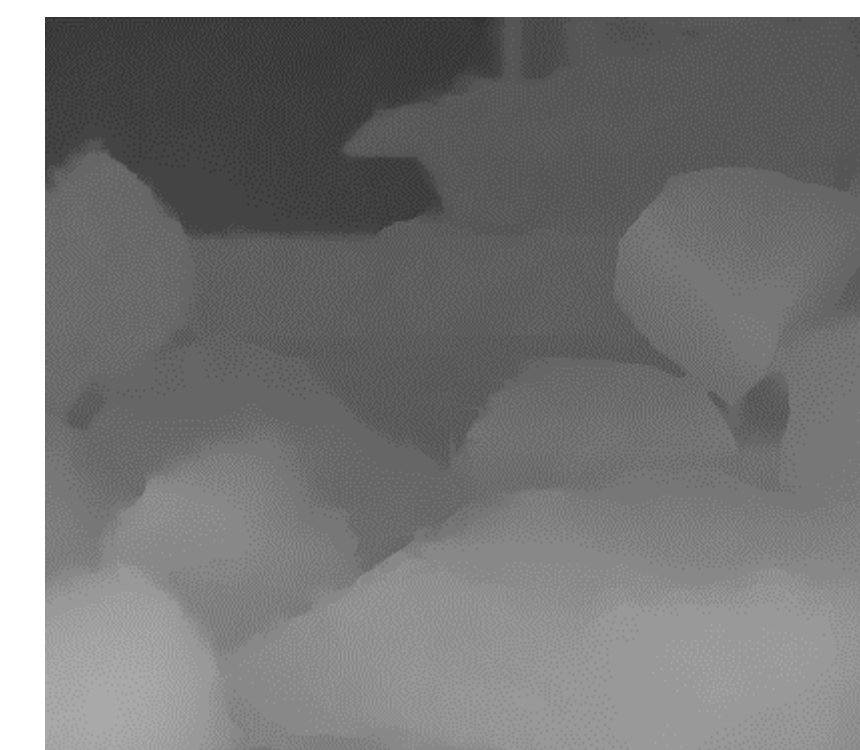
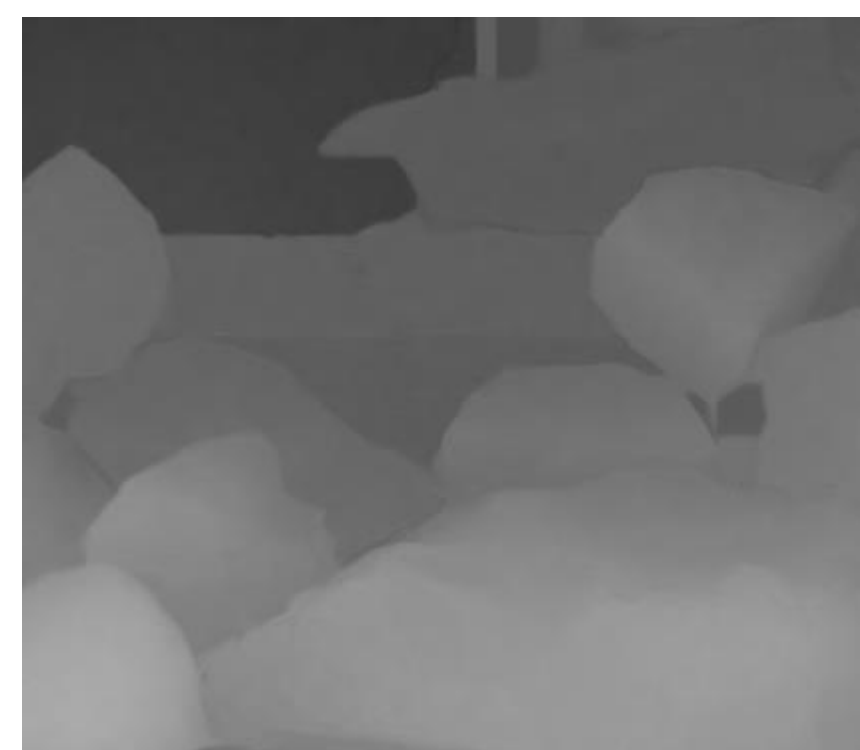
Bilateral filter

Guided filter

Deep joint filter

Ours

Depth Map Upsampling ($8\times$)



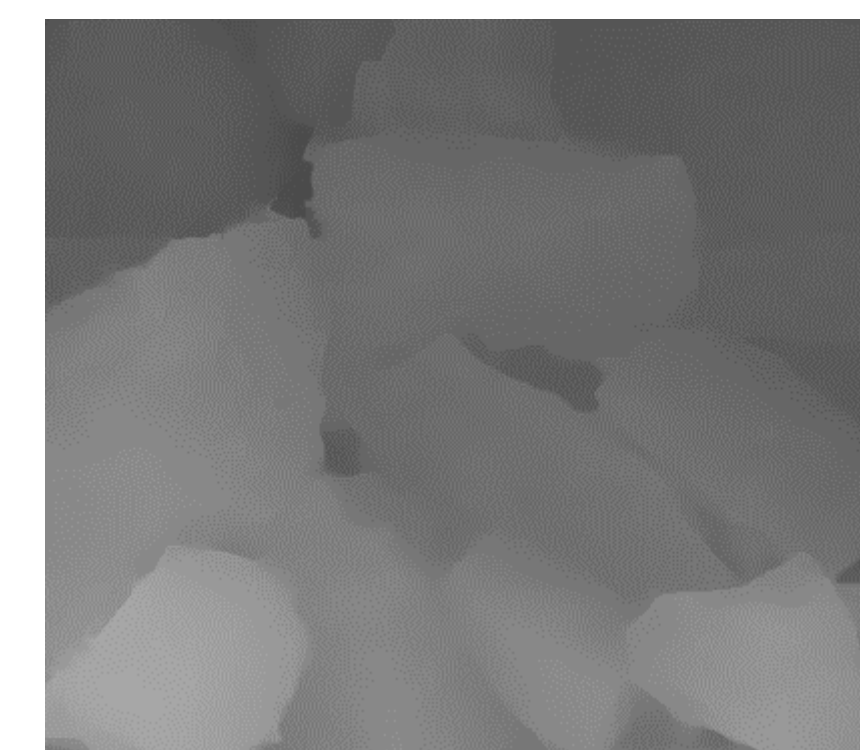
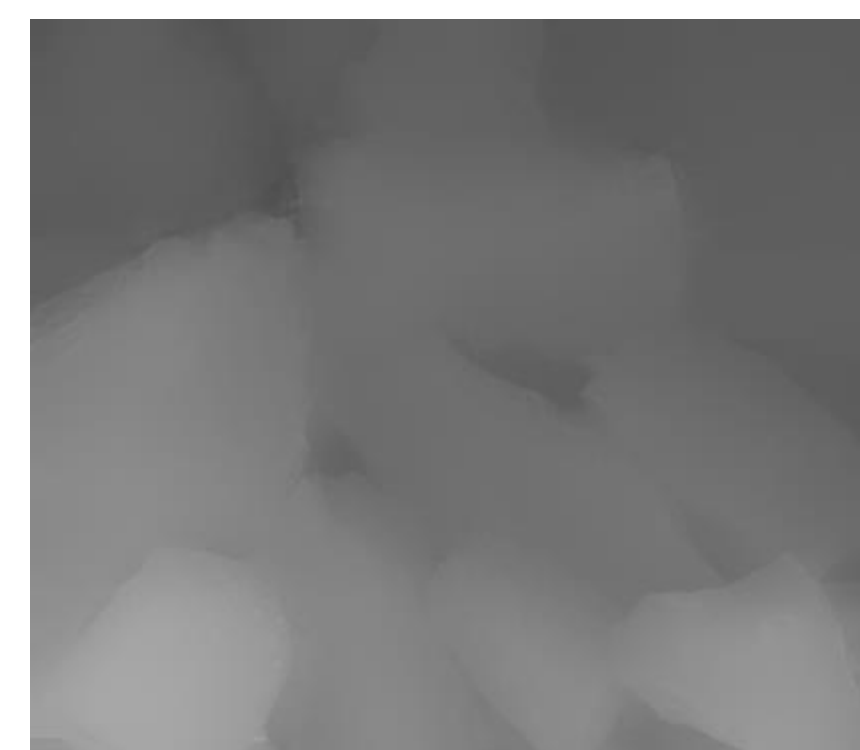
RMSE:

2.35

3.83

1.65

1.77



RMSE:

2.37

3.28

1.42

1.52

Input RGB

Ground truth

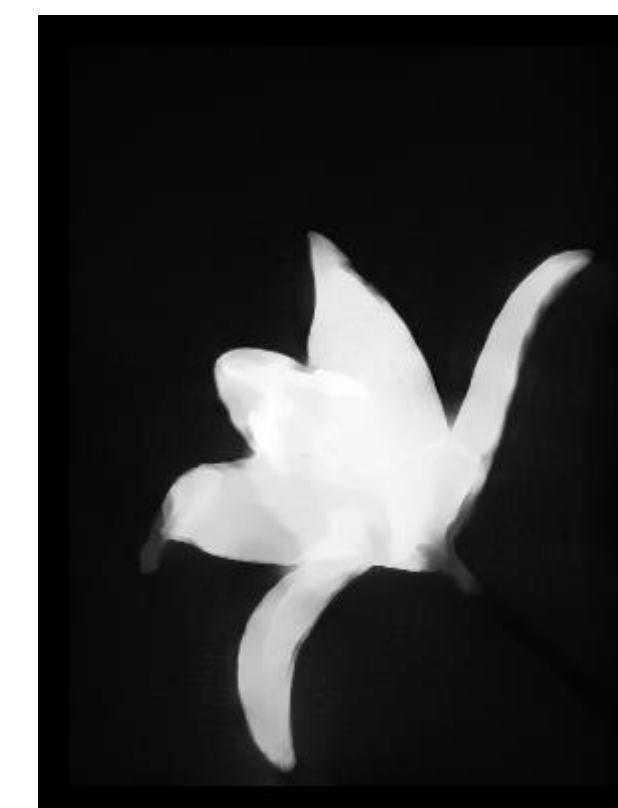
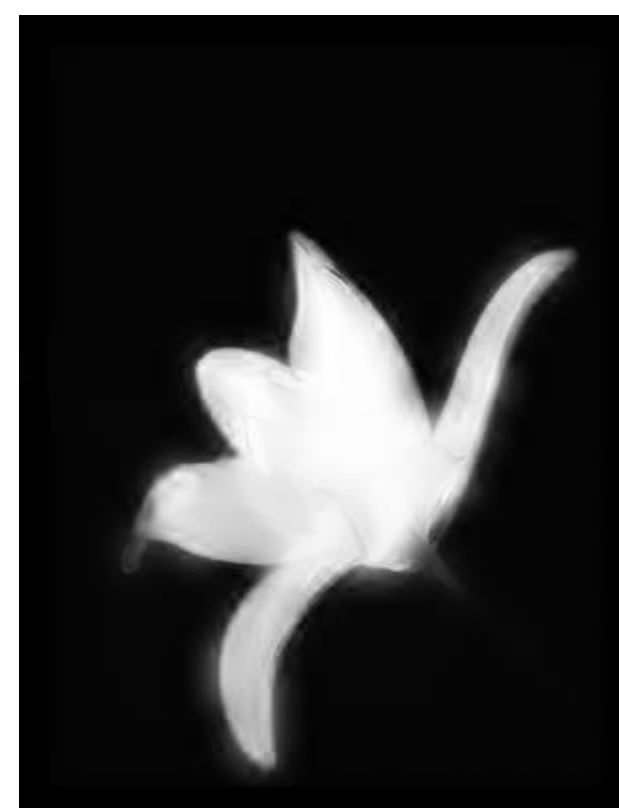
Bilateral filter

Guided filter

Deep joint filter

Ours

Saliency Map Upsampling ($8\times$)



Input image

Bicubic

Guided filter

Deep joint filter

Ours

Saliency Map Upsampling ($8\times$)



Input image

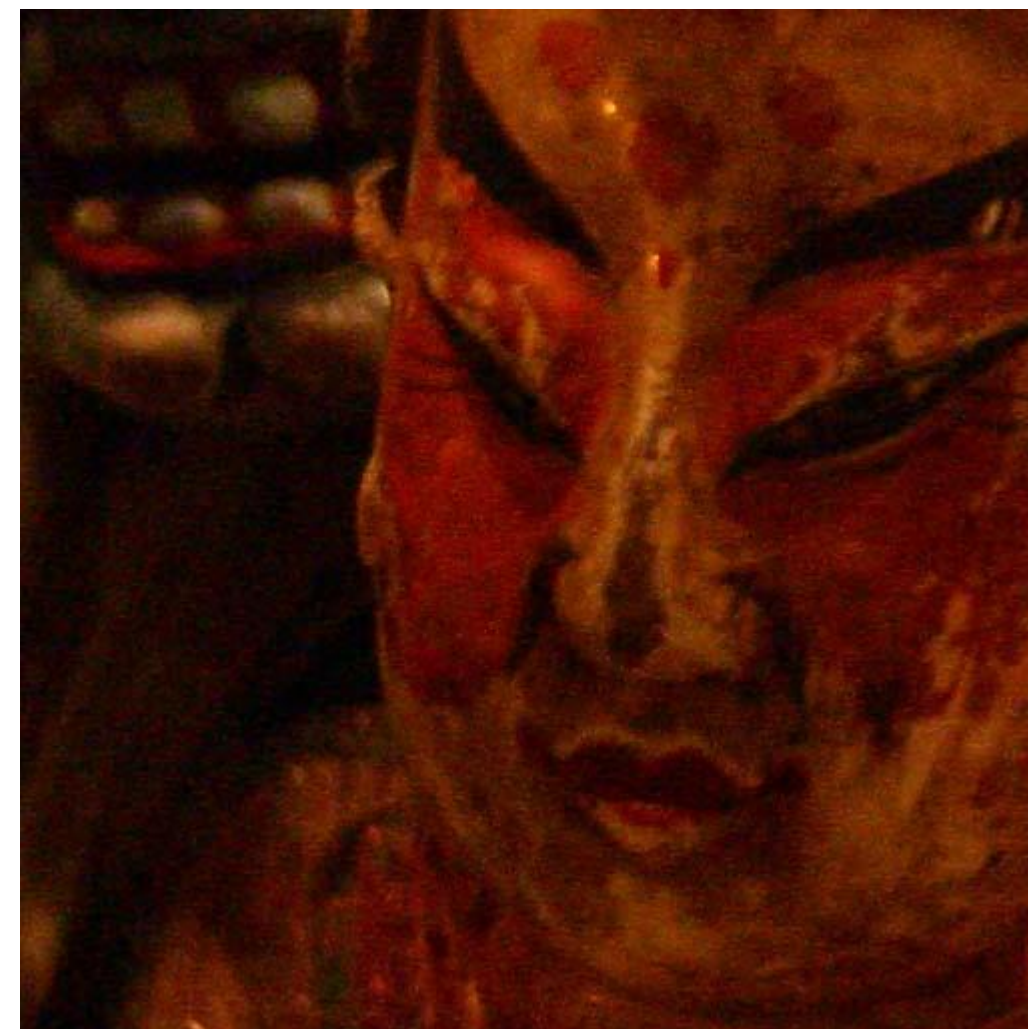
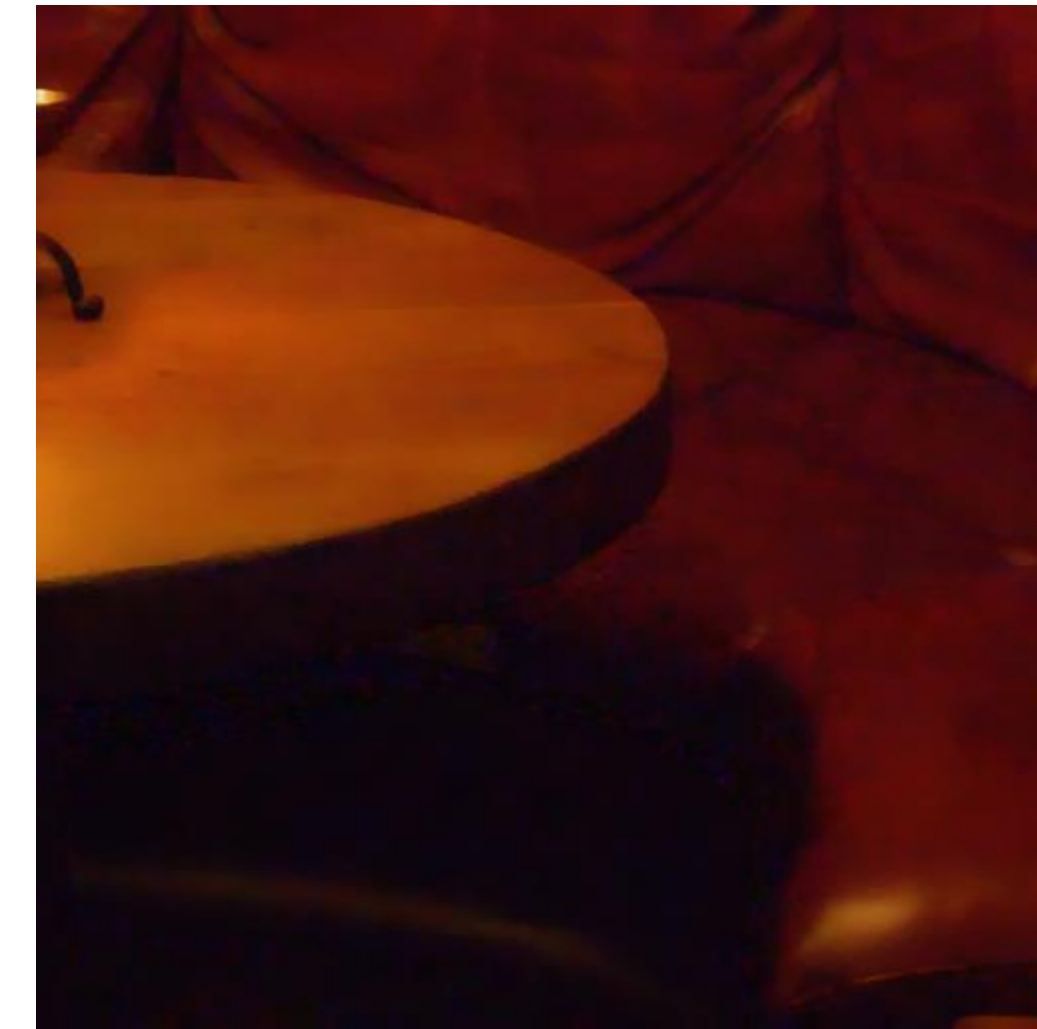
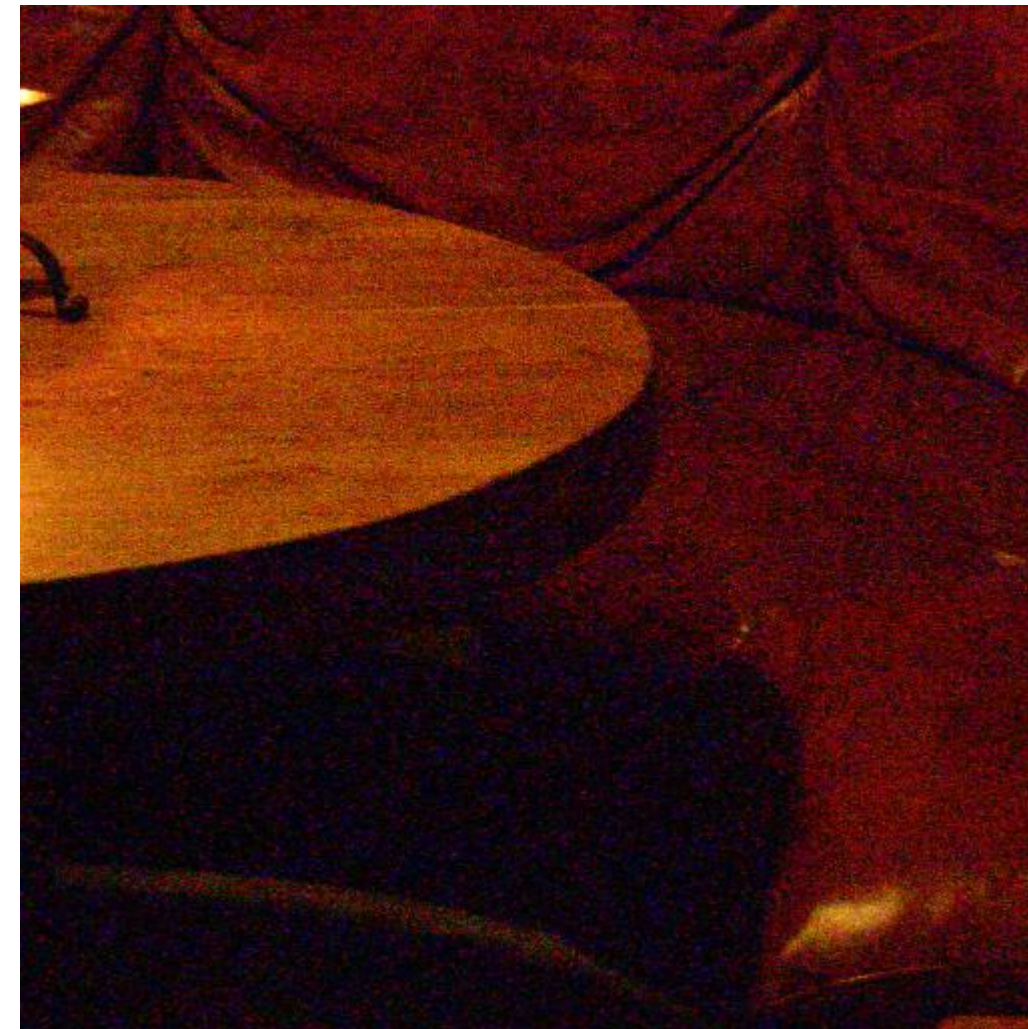
Bicubic

Guided filter

Deep joint filter

Ours

Flash/Non-flash Denoising

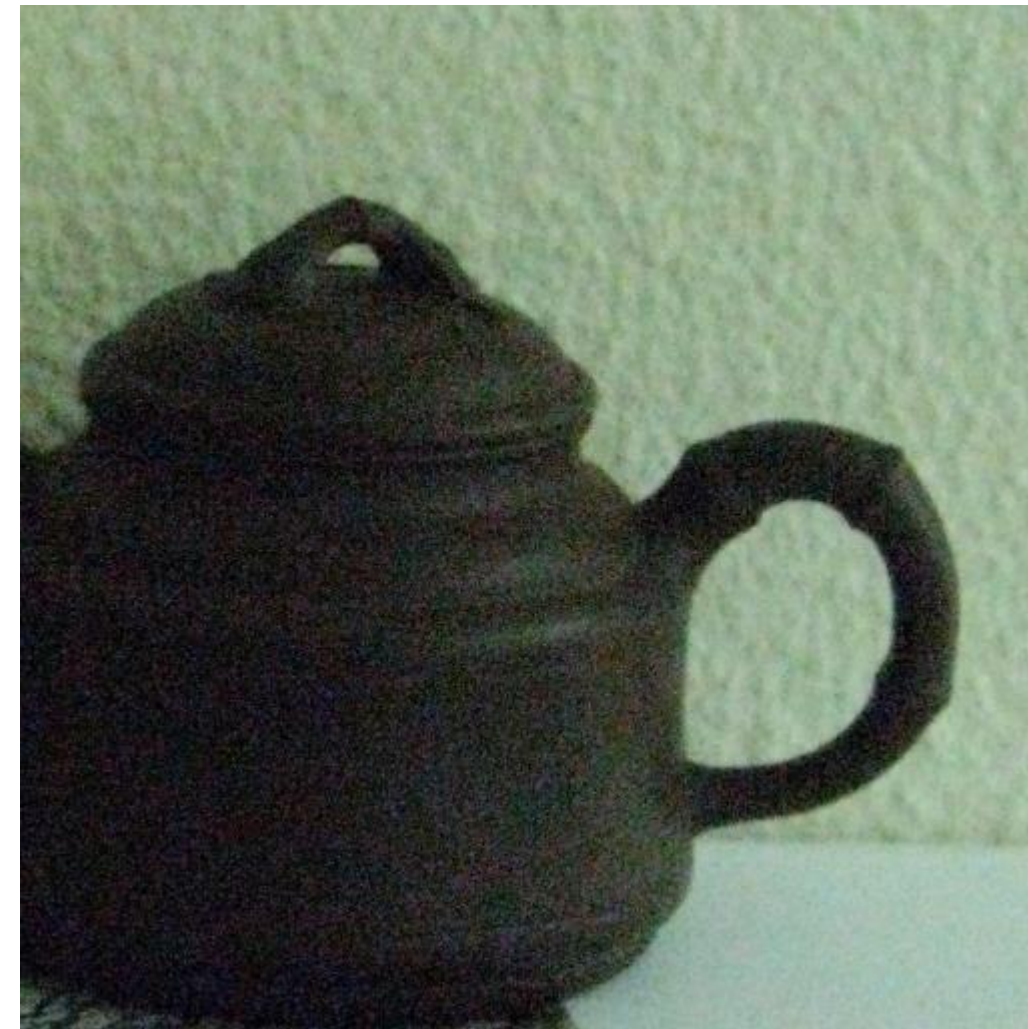


Flash

Non-flash

Ours

RGB/NIR Denoising



NIR

RGB

Ours