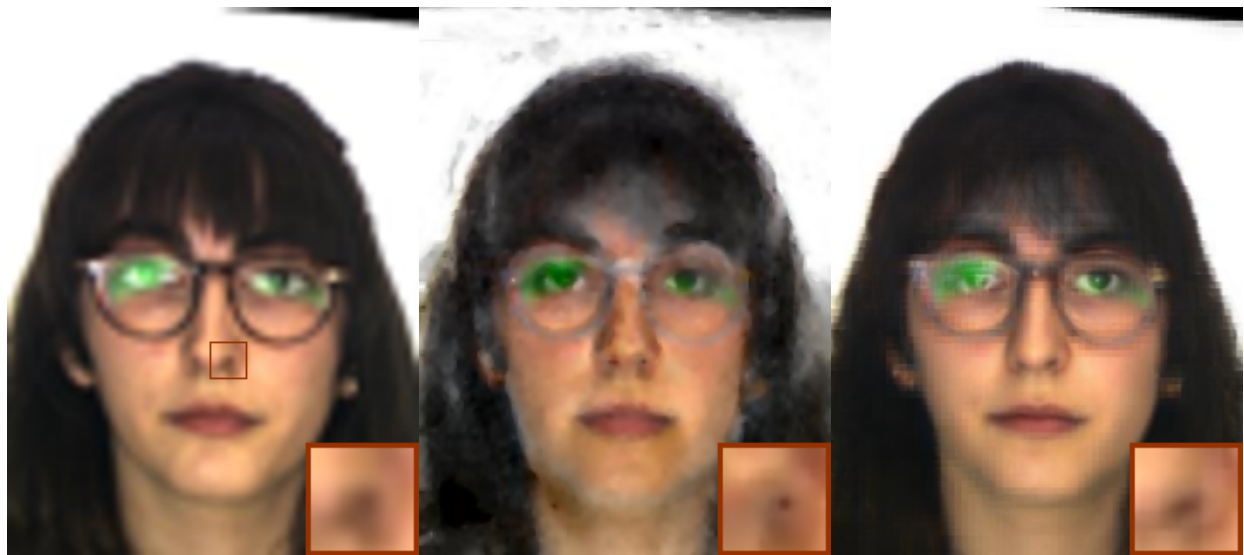# AR Dataset

Evaluations

TABLE I: AR Dataset

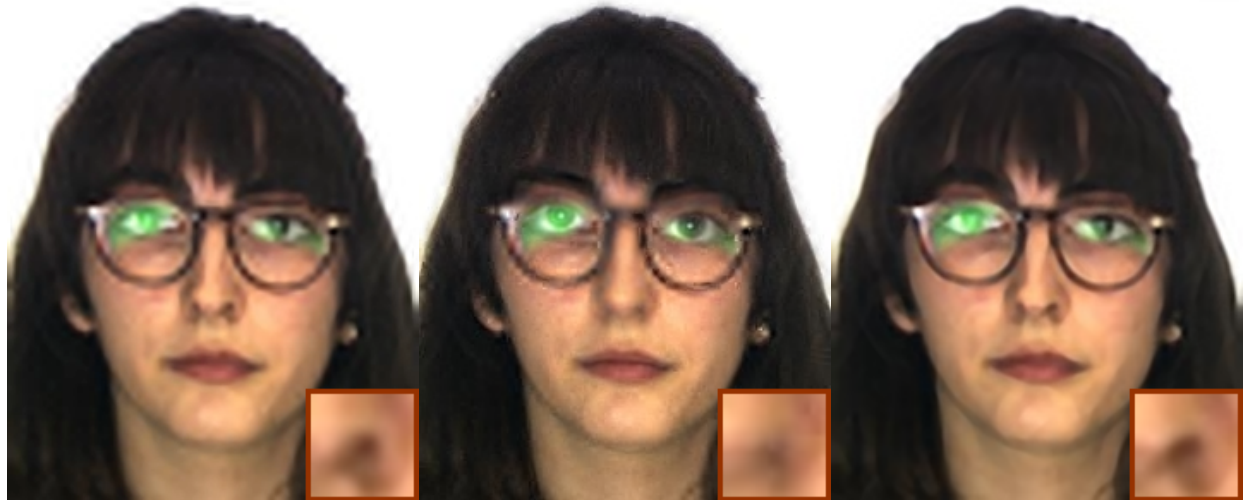|	Bicubic	Liu07 [24]	Ma10 [30]	Yang10 [46]	Yang13 [43]	Dong15 [4]	Gu15 [8]	Finetuned [4]	Proposed
PSNR	29.111	20.448	26.492	30.990	29.894	32.102	32.003	32.573	**33.600**
SSIM	0.911	0.697	0.859	0.925	0.893	0.931	0.915	0.933	**0.941**
FSIM	0.912	0.791	0.891	0.934	0.920	0.941	0.938	0.944	**0.952**
GMSD	0.092	0.213	0.119	0.063	0.053	0.084	0.051	0.050	**0.043**

Quantitative evaluations on AR dataset.

In this file we show numerical and visual evaluations on AR dataset. We involve Gu15 [8] for comparison which is the most recent generic image SR method. The numerical evaluation is shown in Table I and visual evaluation is shown from Fig. 1 to Fig. 5.

(a) Bicubic
PSNR / SSIM
FSIM / GMSD

(b) Liu07 [24]
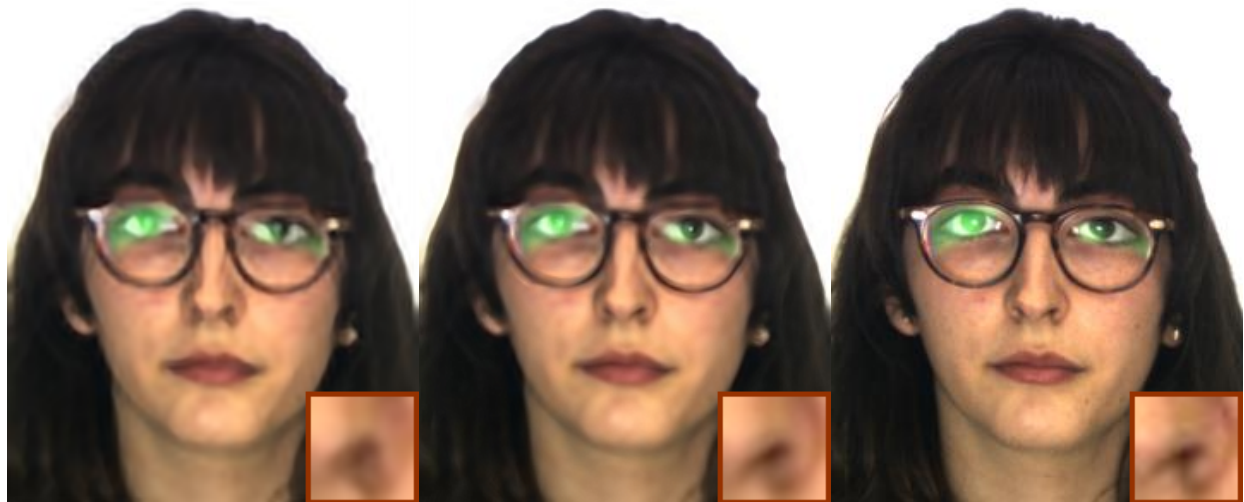18.830 / 0.637
0.759 / 0.227

(c) Ma10 [30]
25.195 / 0.840
0.875 / 0.132

(d) Yang10 [46]
29.382 / 0.927
0.929 / 0.072

(e) Yang13 [43]
28.974 / 0.891
0.913 / 0.094

(f) Gu15 [8]
30.758 / 0.940
0.942 / 0.052

(g) Finetuned [4]
31.453 / 0.936
0.941 / 0.053

(h) Ours
33.103 / 0.940
0.953 / 0.040

(i) Ground Truth
$+\infty$ / 1
1 / 0

Fig. 1: Visual evaluation for 4 $\times$ upsampled face image.

(a) Bicubic
PSNR / SSIM
FSIM / GMSD

(b) Liu07 [24]
21.176 / 0.715
0.800 / 0.211

(c) Ma10 [30]
26.564 / 0.855
0.904 / 0.110

(d) Yang10 [46]
32.452 / 0.942
0.947 / 0.062

(e) Yang13 [43]
31.521 / 0.910
0.932 / 0.087

(f) Gu15 [8]
35.521 / 0.957
0.964 / 0.035

(g) Finetuned [4]
35.262 / 0.951
0.961 / 0.044

(h) Ours
36.477 / 0.959
0.969 / 0.035

(i) Ground Truth
$+\infty$ / 1
1 / 0

Fig. 2: Visual evaluation for 4 $\times$ upsampled face image.

(a) Bicubic
PSNR / SSIM
FSIM / GMSD

(b) Liu07 [24]
21.006 / 0.741
0.801 / 0.213

(c) Ma10 [30]
28.264 / 0.896
0.908 / 0.100

(d) Yang10 [46]
31.249 / 0.928
0.933 / 0.065

(e) Yang13 [43]
30.342 / 0.908
0.925 / 0.086

(f) Gu15 [8]
34.162 / 0.946
0.953 / 0.036

(g) Finetuned [4]
33.981 / 0.941
0.950 / 0.043

(h) Ours
34.884 / 0.949
0.960 / 0.034

(i) Ground Truth
$+\infty$ / 1
1 / 0

Fig. 3: Visual evaluation for 4 $\times$ upsampled face image.

(a) Bicubic
PSNR / SSIM
FSIM / GMSD

(b) Liu07 [24]
20.198 / 0.687
0.774 / 0.225

(c) Ma10 [30]
25.789 / 0.849
0.877 / 0.127

(d) Yang10 [46]
28.083 / 0.903
0.906 / 0.084

(e) Yang13 [43]
28.461 / 0.878
0.902 / 0.103

(f) Gu15 [8]
29.711 / 0.921
0.926 / 0.061

(g) Finetuned [4]
30.561 / 0.917
0.928 / 0.058

(h) Ours
32.916 / 0.925
0.943 / 0.043

(i) Ground Truth
$+\infty$ / 1
1 / 0

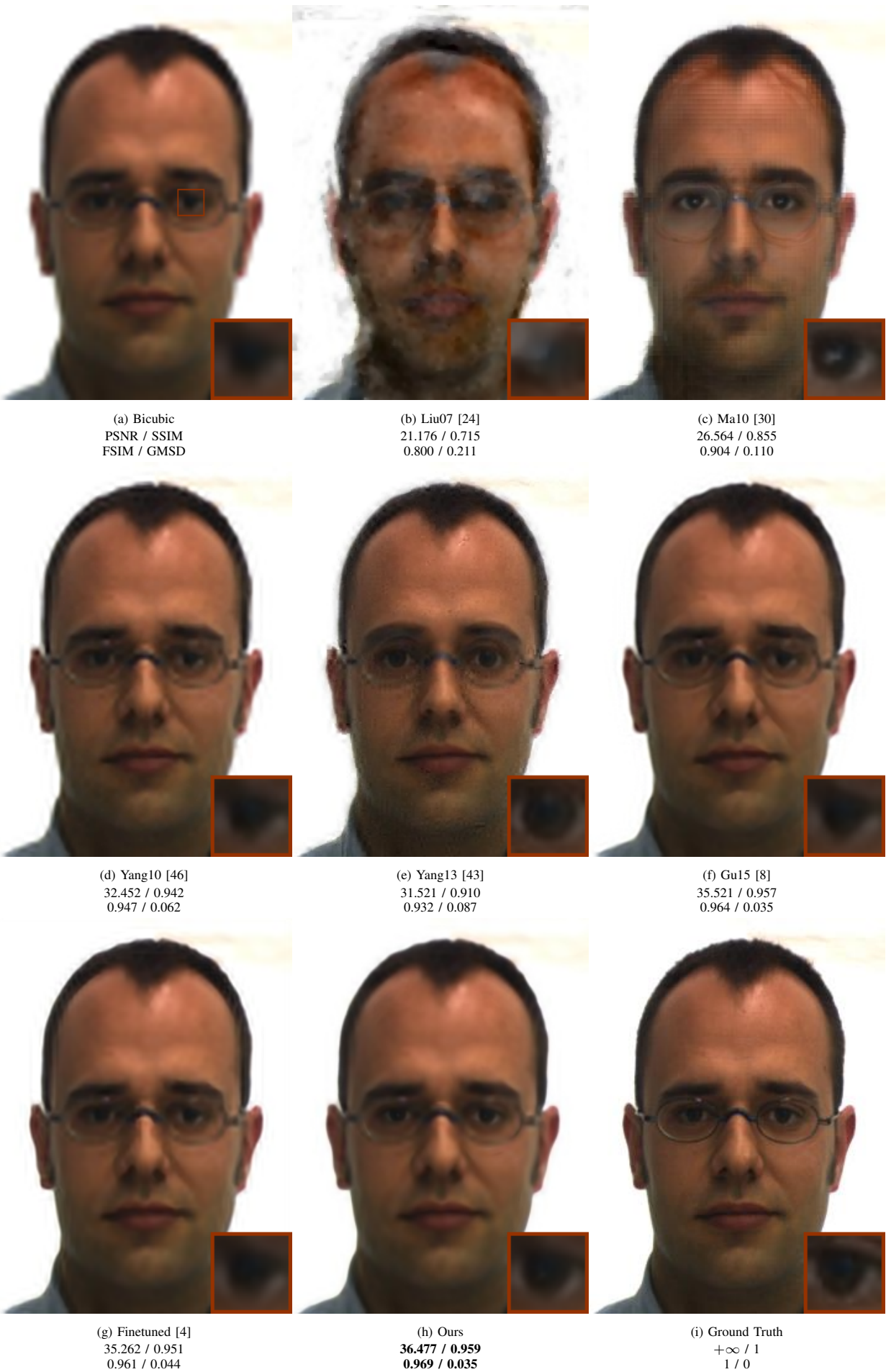Fig. 4: Visual evaluation for 4 $\times$ upsampled face image.

(a) Bicubic
PSNR / SSIM
FSIM / GMSD

(b) Liu07 [24]
20.268 / 0.718
0.777 / 0.231

(c) Ma10 [30]
22.066 / 0.892
0.897 / 0.121

(d) Yang10 [46]
27.937 / 0.931
0.924 / 0.093

(e) Yang13 [43]
29.329 / 0.905
0.918 / 0.101

(f) Gu15 [8]
29.240 / 0.946
0.942 / 0.069

(g) Finetuned [4]
30.917 / 0.945
0.945 / 0.064

(h) Ours
34.163 / 0.951
0.957 / 0.039

(i) Ground Truth
$+\infty$ / 1
1 / 0

Fig. 5: Visual evaluation for 4 $\times$ upsampled face image.