

Figure 1:

- (a) clean image and PSF;
- (b) blurred image, BSNR = 20 ;
- (c) ForWaRD result, ISNR = 3.62;
- (d) FTVd result, ISNR = 6.72;
- (e) L0-ABS result, ISNR = 6.99;
- (f) SURE-LET result, ISNR = -0.46;
- (g) PIEIAS result, ISNR = 8.76;
- (h) BM3DDEB result, ISNR = 8.96;
- (i) Our result, ISNR = 9.53.



Figure 2:

- (a) clean image and PSF;
- (b) blurred image, BSNR = 30 ;
- (c) ForWaRD result, ISNR = 11.45;
- (d) FTVd result, ISNR = 16.35;
- (e) L0-ABS result, ISNR = 14.07;
- (f) SURE-LET result, ISNR = 0.7;
- (g) PIEIAS result, ISNR = 16.46;
- (h) BM3DDEB result, ISNR = 17.65;
- (i) Our result, ISNR = 18.31.



Figure 3:

- (a) clean image and PSF;
- (b) blurred image, $\text{BSNR} = 25$;
- (c) ForWaRD result, $\text{ISNR} = 4.53$;
- (d) FTVd result, $\text{ISNR} = 8.08$;
- (e) L0-ABS result, $\text{ISNR} = 7.47$;
- (f) SURE-LET result, $\text{ISNR} = 2.95$;
- (g) PIEIAS result, $\text{ISNR} = 8.64$;
- (h) BM3DDEB result, $\text{ISNR} = 8.71$;
- (i) Our result, $\text{ISNR} = 9.52$.



Figure 4:

- (a) clean image and PSF;
- (b) blurred image, $\text{BSNR} = 25$;
- (c) ForWaRD result, $\text{ISNR} = 9.26$;
- (d) FTVd result, $\text{ISNR} = 12.48$;
- (e) L0-ABS result, $\text{ISNR} = 12.15$;
- (f) SURE-LET result, $\text{ISNR} = 8.23$;
- (g) PIEIAS result, $\text{ISNR} = 13.06$;
- (h) BM3DDEB result, $\text{ISNR} = 13.42$;
- (i) Our result, $\text{ISNR} = 14.23$.

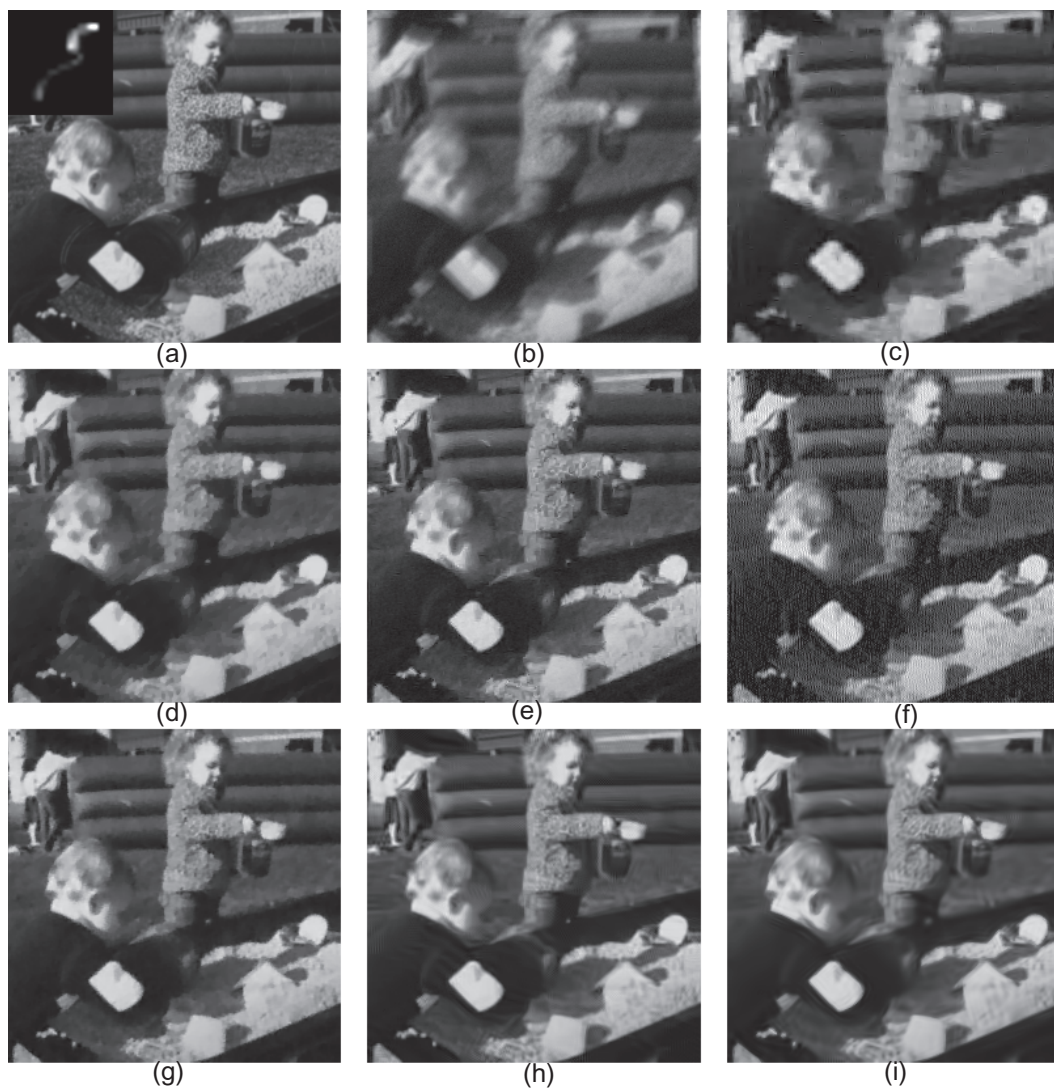


Figure 5:

- (a) clean image and PSF;
- (b) blurred image, $\text{BSNR} = 25$;
- (c) ForWaRD result, $\text{ISNR} = 10.67$;
- (d) FTVd result, $\text{ISNR} = 15.25$;
- (e) L0-ABS result, $\text{ISNR} = 14.52$;
- (f) SURE-LET result, $\text{ISNR} = 4.53$;
- (g) PIEIAS result, $\text{ISNR} = 16.11$;
- (h) BM3DDEB result, $\text{ISNR} = 15.98$;
- (i) Our result, $\text{ISNR} = 16.37$.

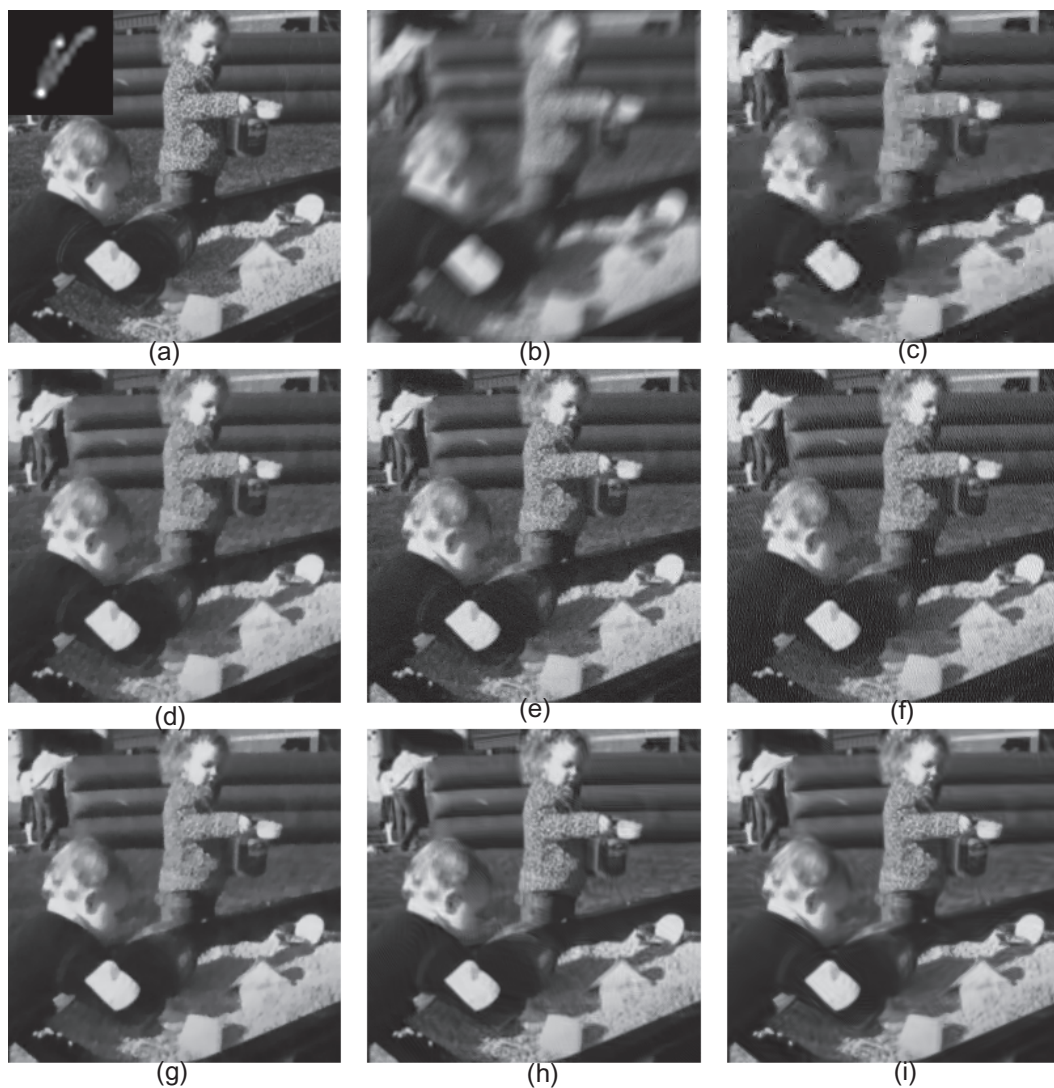


Figure 6:

- (a) clean image and PSF;
- (b) blurred image, $\text{BSNR} = 35$;
- (c) ForWaRD result, $\text{ISNR} = 8.10$;
- (d) FTVd result, $\text{ISNR} = 13.03$;
- (e) L0-ABS result, $\text{ISNR} = 11.65$;
- (f) SURE-LET result, $\text{ISNR} = 6.11$;
- (g) PIEIAS result, $\text{ISNR} = 13.32$;
- (h) BM3DDEB result, $\text{ISNR} = 13.51$;
- (i) Our result, $\text{ISNR} = 13.96$.



Figure 7:

- (a) clean image and PSF;
- (b) blurred image, $\text{BSNR} = 30$;
- (c) ForWaRD result, $\text{ISNR} = 9.54$;
- (d) FTVd result, $\text{ISNR} = 12.28$;
- (e) L0-ABS result, $\text{ISNR} = 9.86$;
- (f) SURE-LET result, $\text{ISNR} = 8.20$;
- (g) PIEIAS result, $\text{ISNR} = 12.56$;
- (h) BM3DDEB result, $\text{ISNR} = 12.51$;
- (i) Our result, $\text{ISNR} = 12.77$.

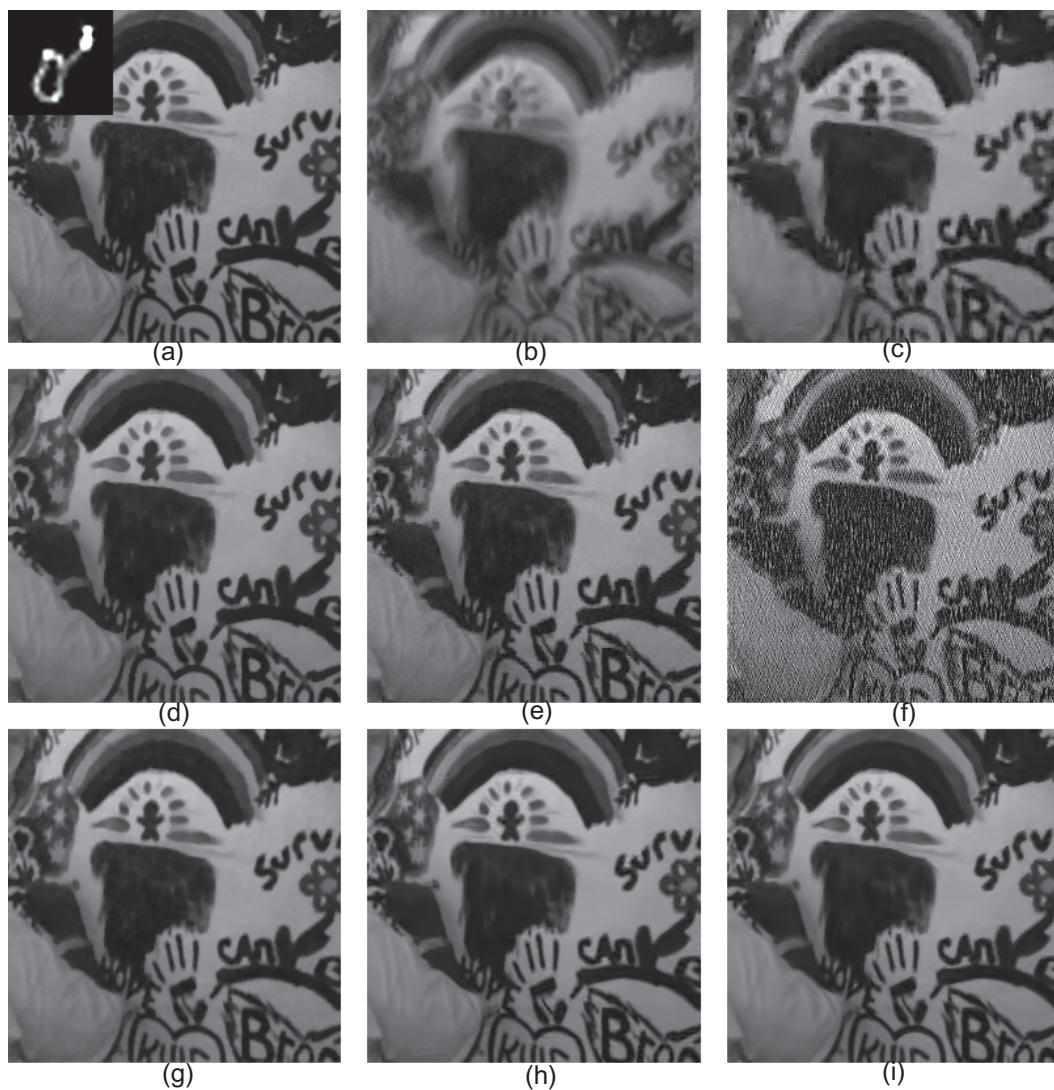


Figure 8:

- (a) clean image and PSF;
- (b) blurred image, $\text{BSNR} = 25$;
- (c) ForWaRD result, $\text{ISNR} = 9.54$;
- (d) FTVd result, $\text{ISNR} = 15.94$;
- (e) L0-ABS result, $\text{ISNR} = 14.44$;
- (f) SURE-LET result, $\text{ISNR} = -3.80$;
- (g) PIEIAS result, $\text{ISNR} = 16.63$;
- (h) BM3DDEB result, $\text{ISNR} = 16.71$;
- (i) Our result, $\text{ISNR} = 16.89$.



(a) Original image and PSF



(b) Blurred image, BSNR = 30



(c) BM3DDEB result, ISNR = 9.62



(d) Our result, ISNR = 10.28

Figure 9:



(a) Original image and PSF



(b) Blurred image, BSNR = 25



(c) BM3DDEB result, ISNR = 9.09



(d) Our result, ISNR = 9.25

Figure 10:



(a) Original image and PSF



(b) Blurred image, BSNR = 30



(c) BM3DDEB result, ISNR = 13.36



(d) Our result, ISNR = 13.69

Figure 11:



(a) Original image and PSF



(b) Blurred image, BSNR = 25

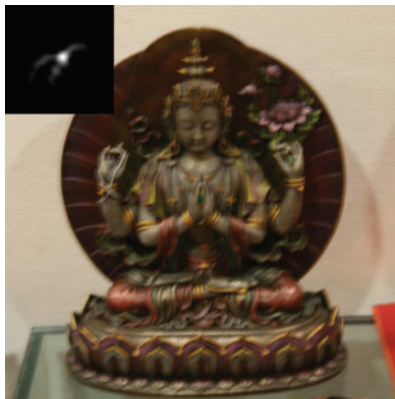


(c) BM3DDEB result, ISNR = 11.84

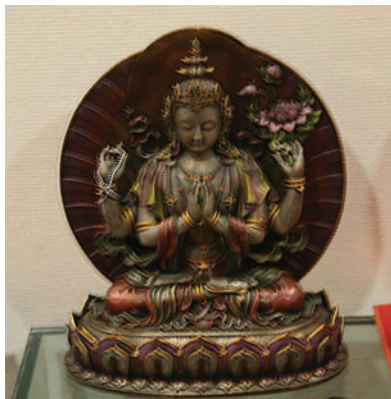


(d) Our result, ISNR = 12.60

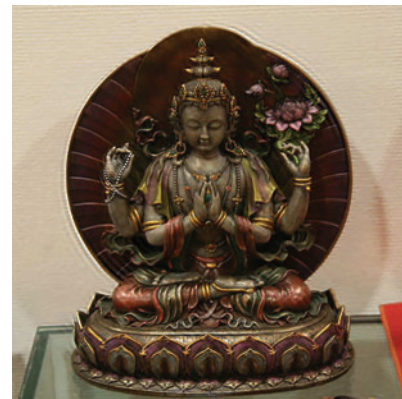
Figure 12:



(a)



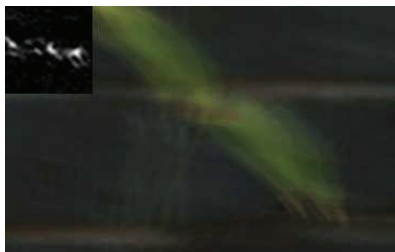
(b)



(c)

Figure 13: (a) The input blurred image and the kernel is estimated from the blurred image using [Jia et al. 2010]. (b) The deconvolution result is achieved from [Jia et al. 2010]. (c) our non-blind deconvolution result is computed from the blurred image only. The kernel is estimated by [Jia et al. 2010]

Jia et al. 2010 : Li Xu, J.Jia: Two-phase kernel estimation for robust motion deblurring, ECCV, 2010, 157-170.



(a)



(b)



(c)

Figure 14: (a) The input blurred image and the kernel is estimated from the blurred image using [Jia et al. 2010]. (b) The deconvolution result is achieved from [Jia et al. 2010]. (c) our non-blind deconvolution result is computed from the blurred image only. The kernel is estimated by [Jia et al. 2010].

Jia et al. 2010 : Li Xu, J.Jia: Two-phase kernel estimation for robust motion deblurring, ECCV, 2010, 157-170.