

Supplementary Materials of "Improved Performance of GANs via Integrating Gradient Penalty with Spectral Normalization"

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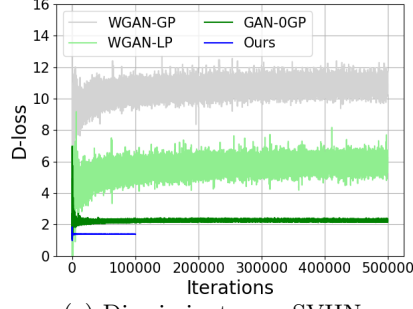
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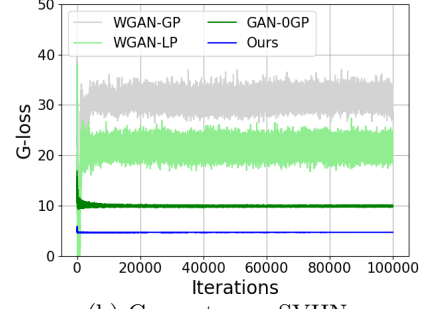
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1 Networks Convergence and Training Stability on SVHN, STL10, CelebA, LSUN

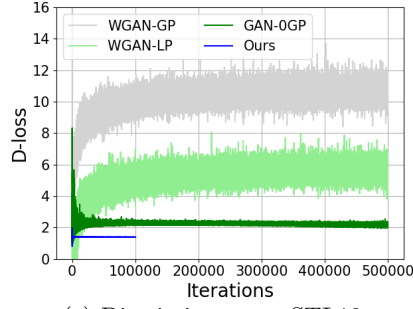
To provide more evidence, a series of experiments were performed on SVHN, STL10, CelebA and LSUN (bedroom). Similarly, the results of networks convergence and training stability are illustrated in Fig. 1 and Fig. 2, respectively. In both networks convergence and training stability, our method demonstrably outperforms the other methods on four datasets. For the visualization, the results of networks convergence and training stability are illustrated in the next two pages.



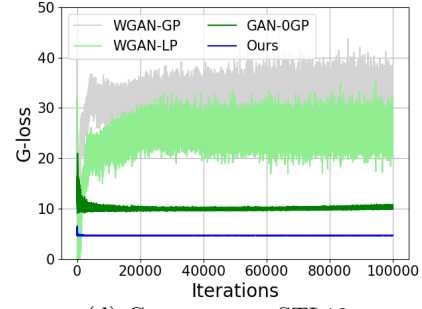
(a) Discriminator on SVHN



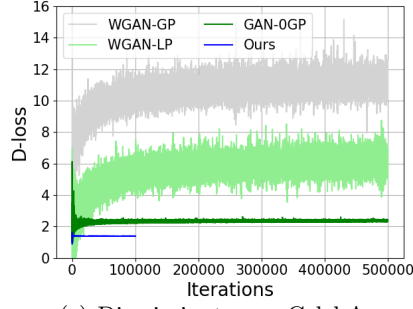
(b) Generator on SVHN



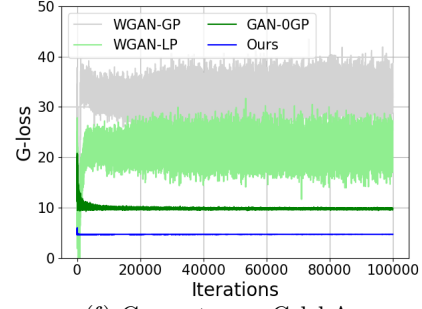
(c) Discriminator on STL10



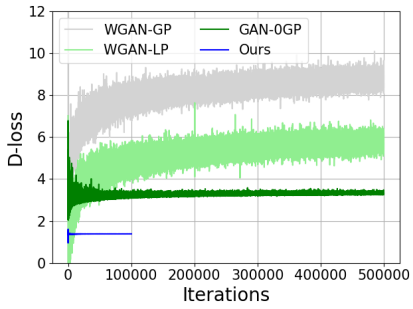
(d) Generator on STL10



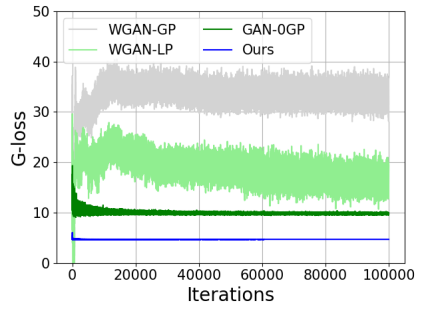
(e) Discriminator on CelebA



(f) Generator on CelebA



(g) Discriminator on LSUN (bedroom)



(h) Generator on LSUN (bedroom)

Fig. 1. Comparison of the networks convergence among four GANs methods on SVHN, STL10, CelebA and LSUN (bedroom).

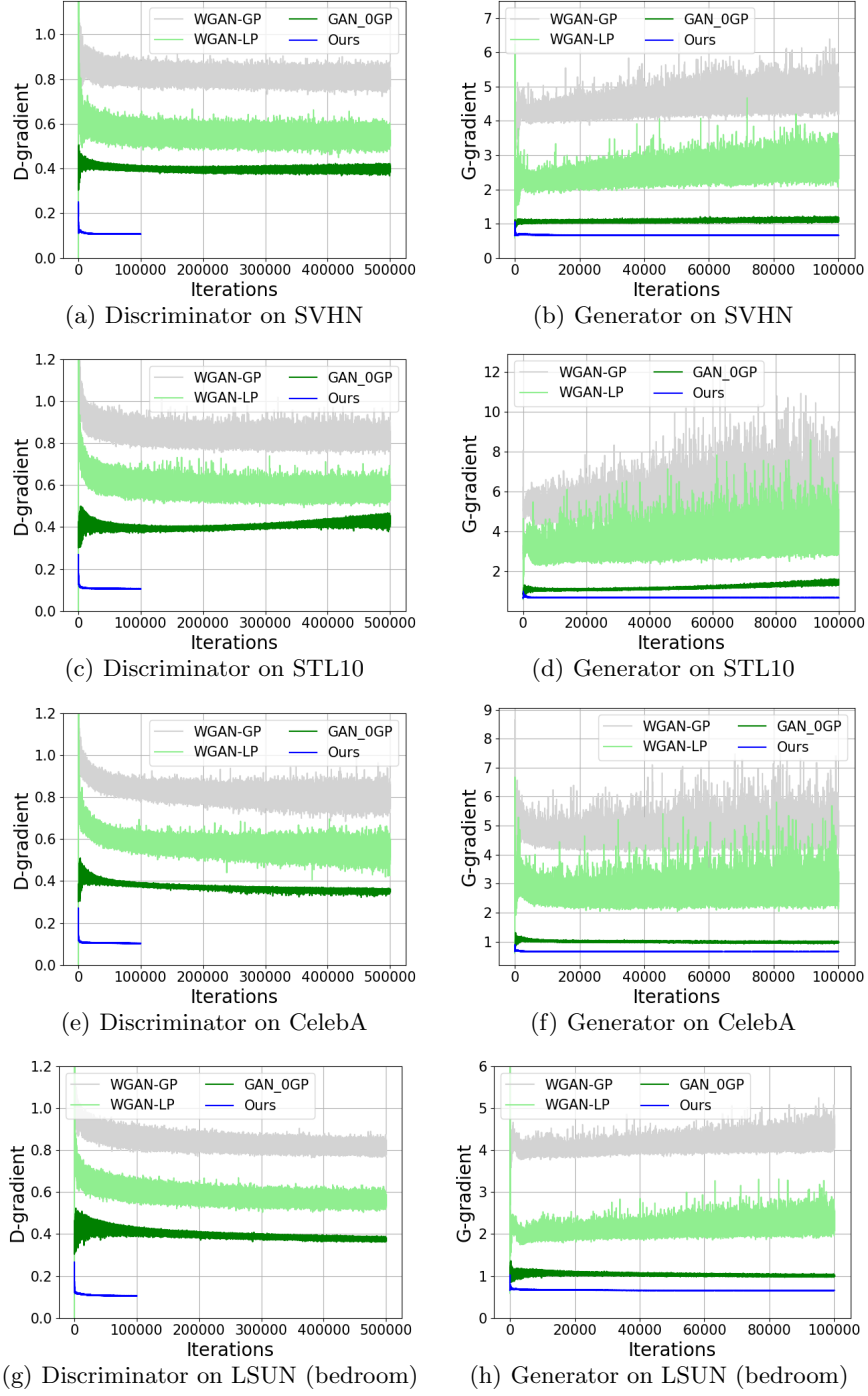


Fig. 2. Comparison of the training stability among four GANs methods on SVHN, STL10, CelebA and LSUN (bedroom).