

**CRUNCH Seminars at Brown, Division of Applied Mathematics**

**Friday – April 26, 2019**

**Paper Review #3: Spectral Normalization for Generative Adversarial Networks**

Liu Yang

One of the challenges in the study of generative adversarial networks is the instability of its training. In this paper, we propose a novel weight normalization technique called spectral normalization to stabilize the training of the discriminator. Our new normalization technique is computationally light and easy to incorporate into existing implementations. We tested the efficacy of spectral normalization on CIFAR10, STL-10, and ILSVRC2012 dataset, and we experimentally confirmed that spectrally normalized GANs (SN-GANs) is capable of generating images of better or equal quality relative to the previous training stabilization techniques.

arXiv link: <https://arxiv.org/abs/1802.05957>