

Circle attractor $\beta = 20$

1) $\mathcal{L} = \text{Equality loss on current ensemble} + \text{integral loss (regularization)}$

Doesn't work. Melts into oblivion.

2) $\mathcal{L} = \text{Equality loss on current ensemble}$

Doesn't work. Melts into oblivion

3) $\mathcal{L} = \text{Equality loss on current ensemble} + \text{symmetry loss} + \lambda \text{ integral loss}$

Beautiful solution but doesn't stabilize!

4) $\mathcal{L} = \text{Equality loss on current ensemble} + \frac{0.001}{N} \sum_{x_i \in C_i} p(x_i) + \lambda \text{ integral loss}$

Not perfect solution but does stabilize.

5) $\mathcal{L} = \text{Equality on domain pts} + \lambda \text{ integral loss}$

Amazing. First appearance of unforced symmetry.

$$6) \quad \mathcal{L} = \text{Equality loss} + \text{sample integral loss}$$

$$\text{integral loss} = \left(\frac{1}{N} \sum_{x \in e_{i-1}} \frac{nn_i(x)}{nn_{i-1}(x)} - 1 \right)^2$$

$$\text{sample integral loss} = \left(\frac{1}{N} \sum_{x \in e_i} \frac{nn_{i-1}(x)}{nn_i(x)} - 1 \right)^2$$

Doesn't work.

