

Discriminator

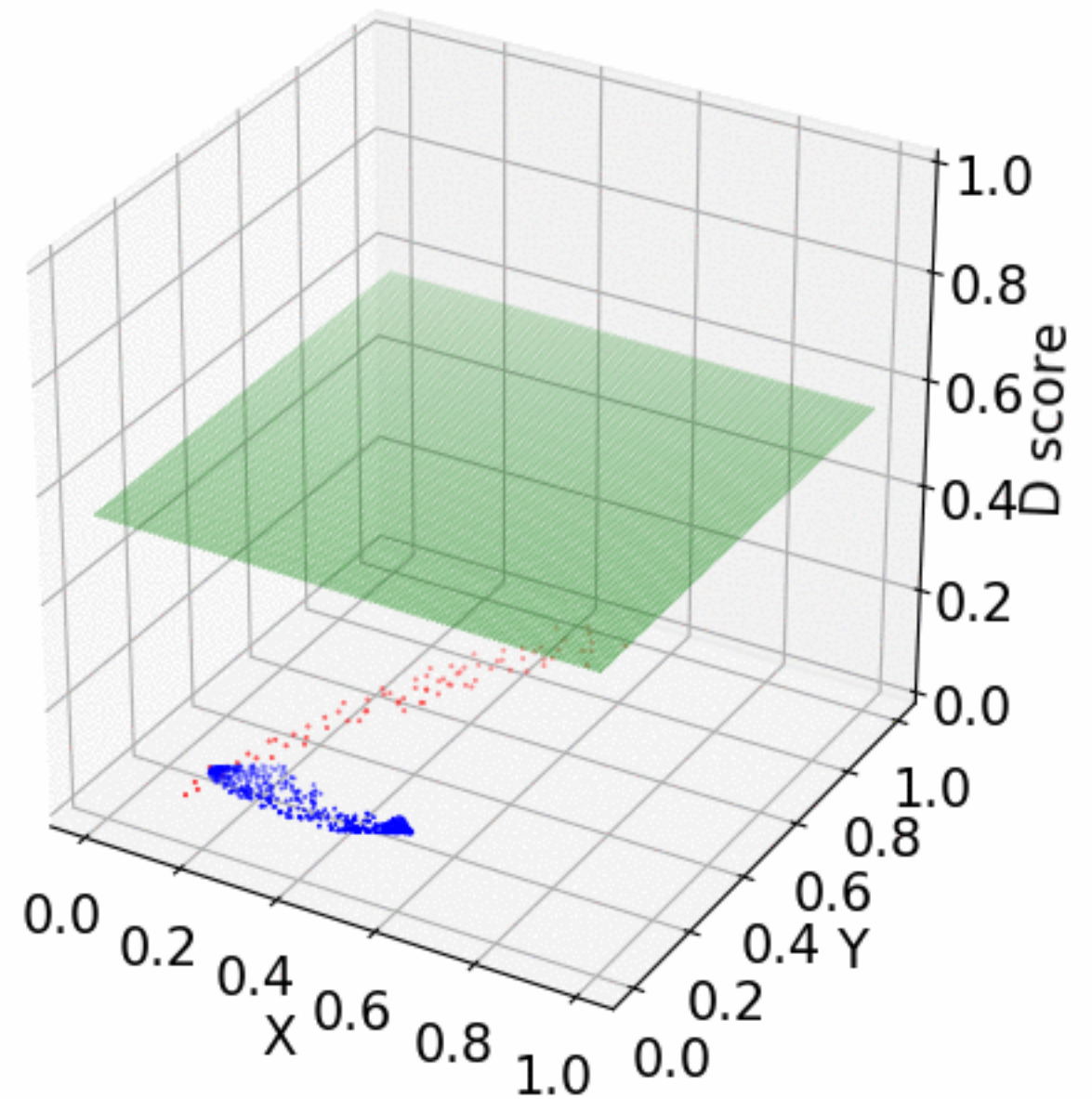
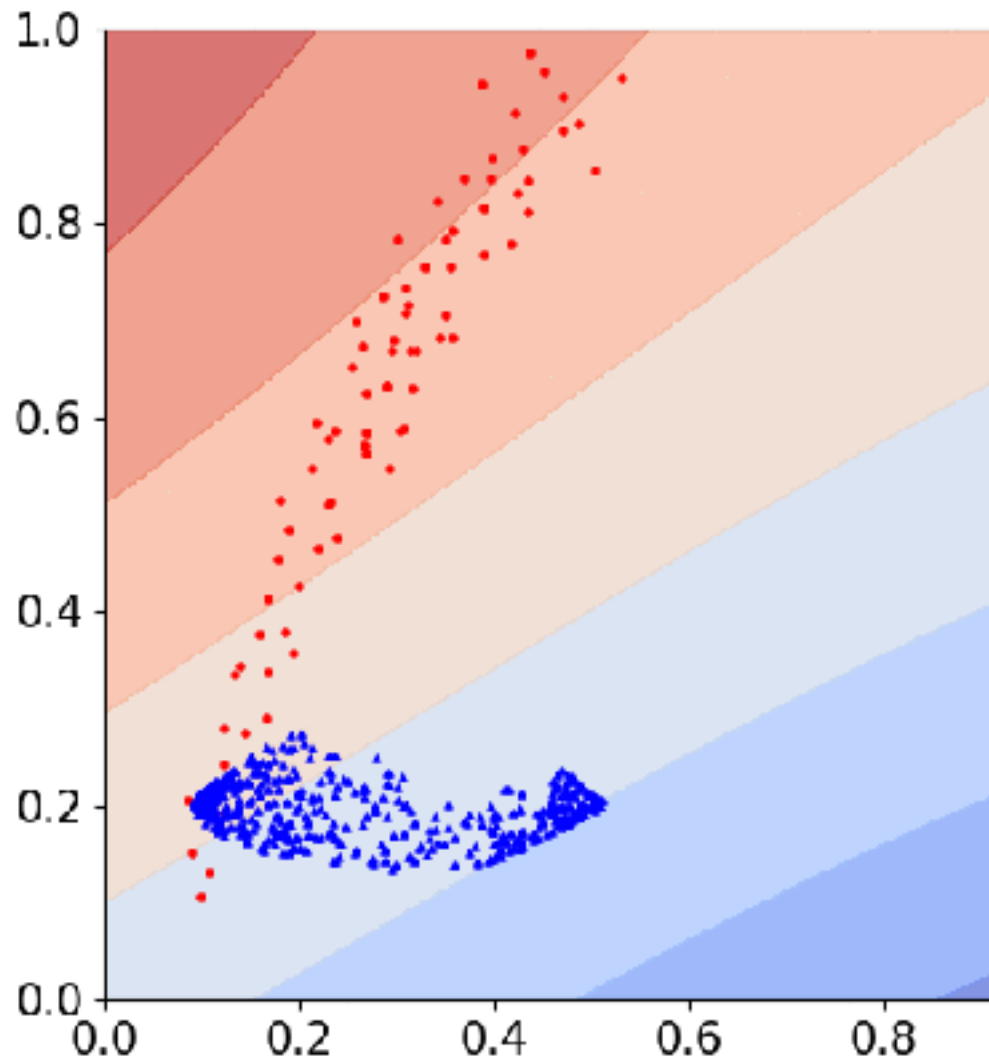
Generator



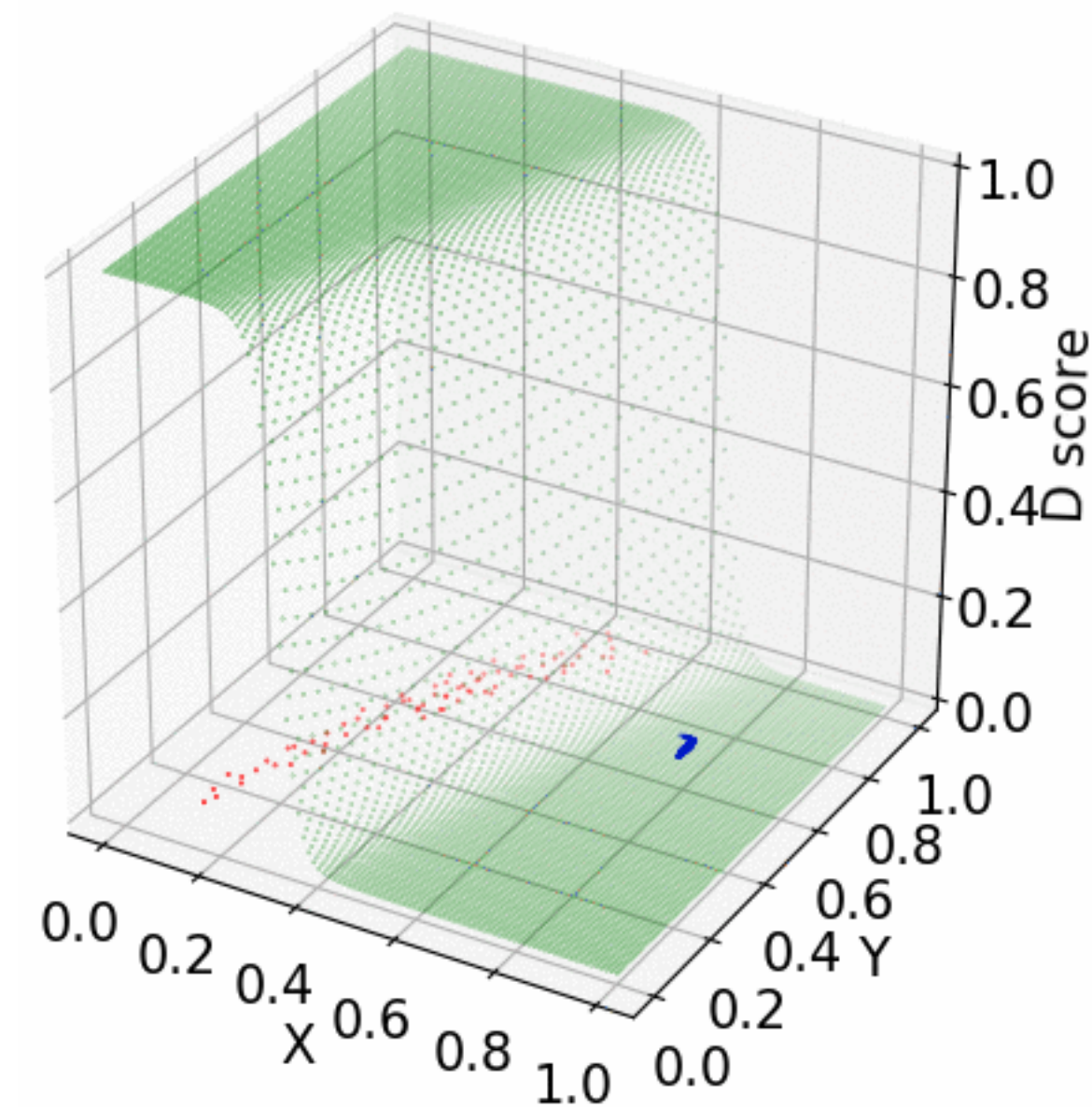
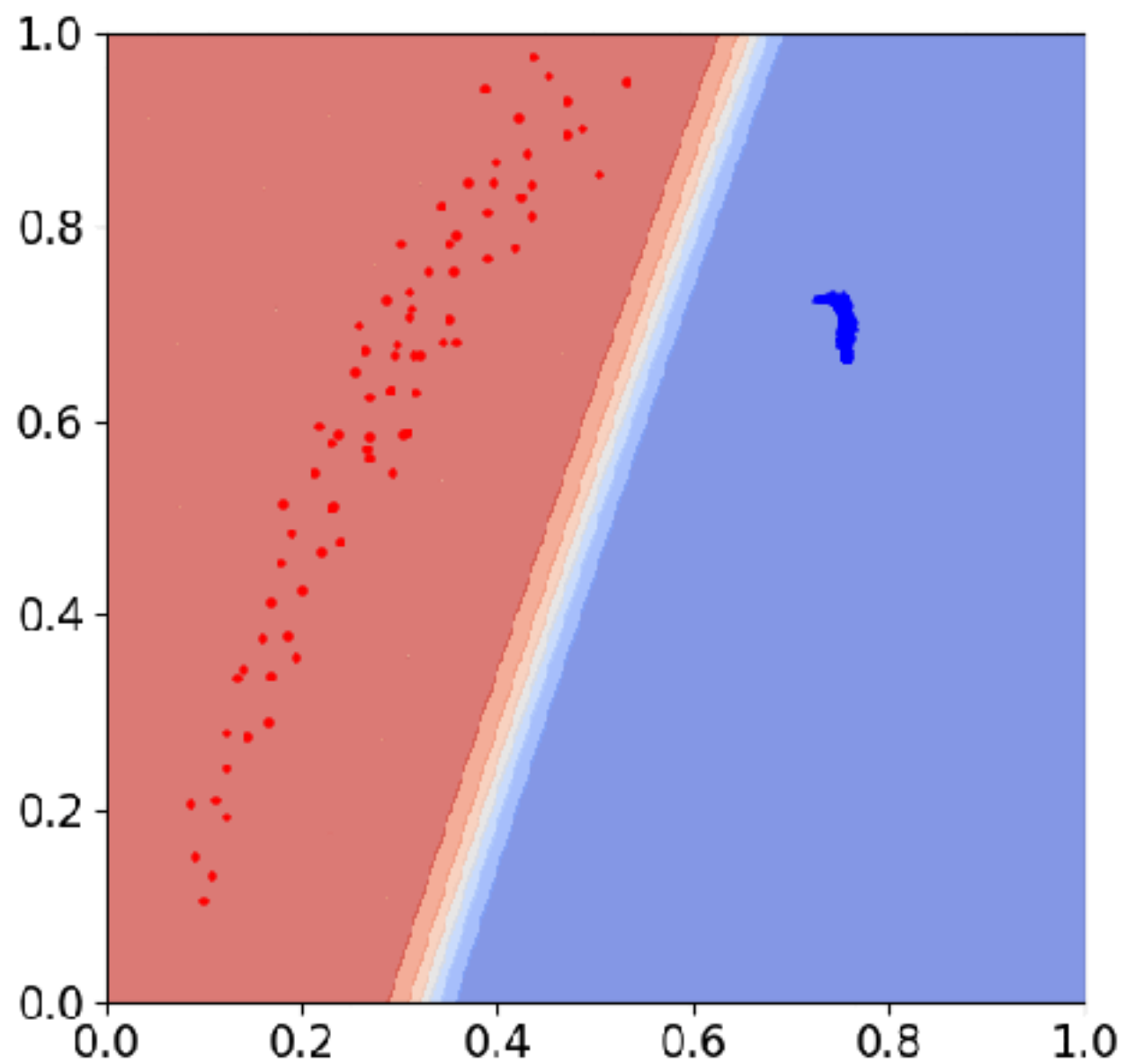
Discriminator fail

Discriminator : $x \rightarrow 10 \rightarrow 10 \rightarrow 10 \rightarrow \text{out}$

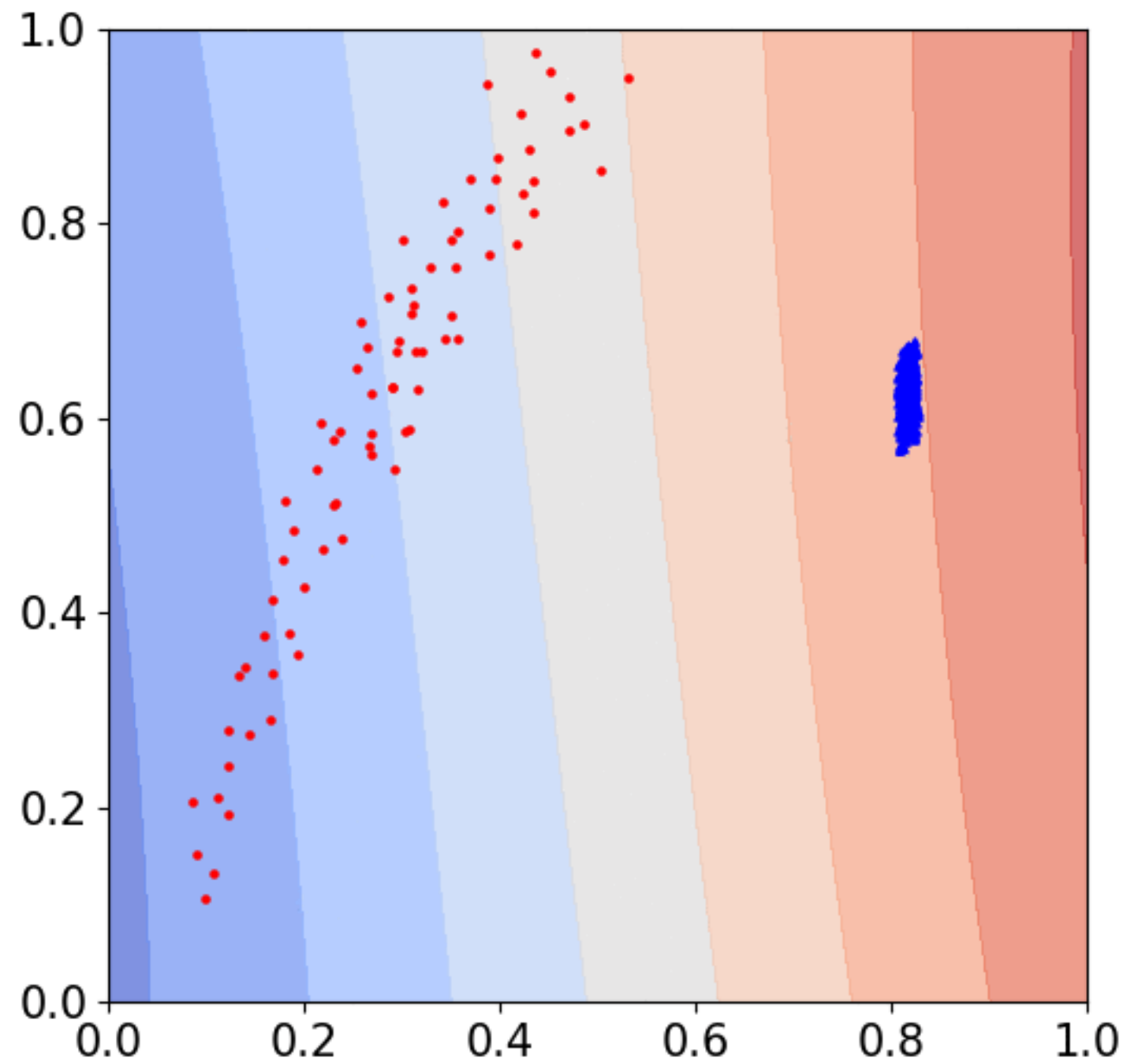
Generator : $x \rightarrow 5 \rightarrow 5 \rightarrow 5 \rightarrow \text{out}$



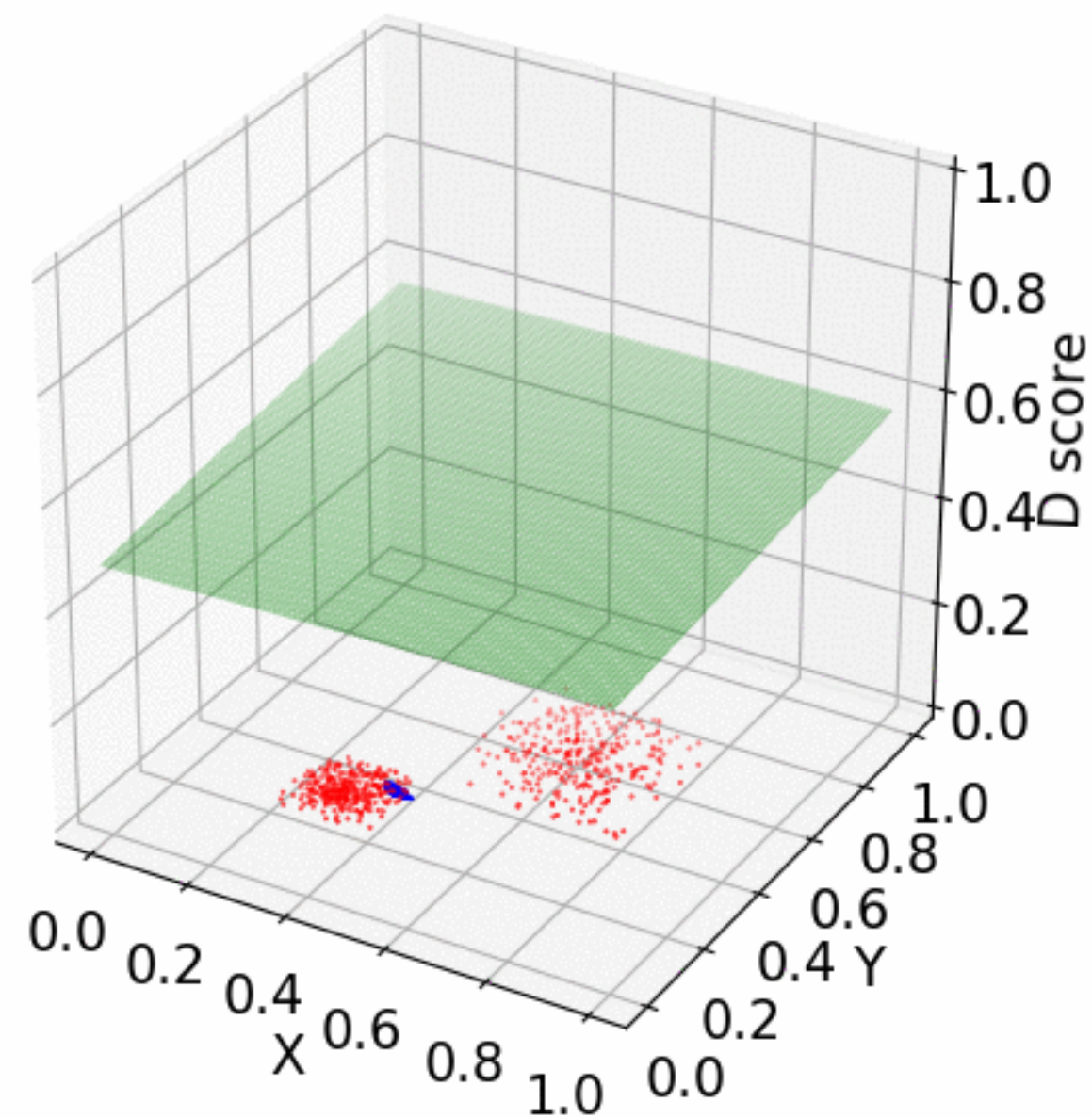
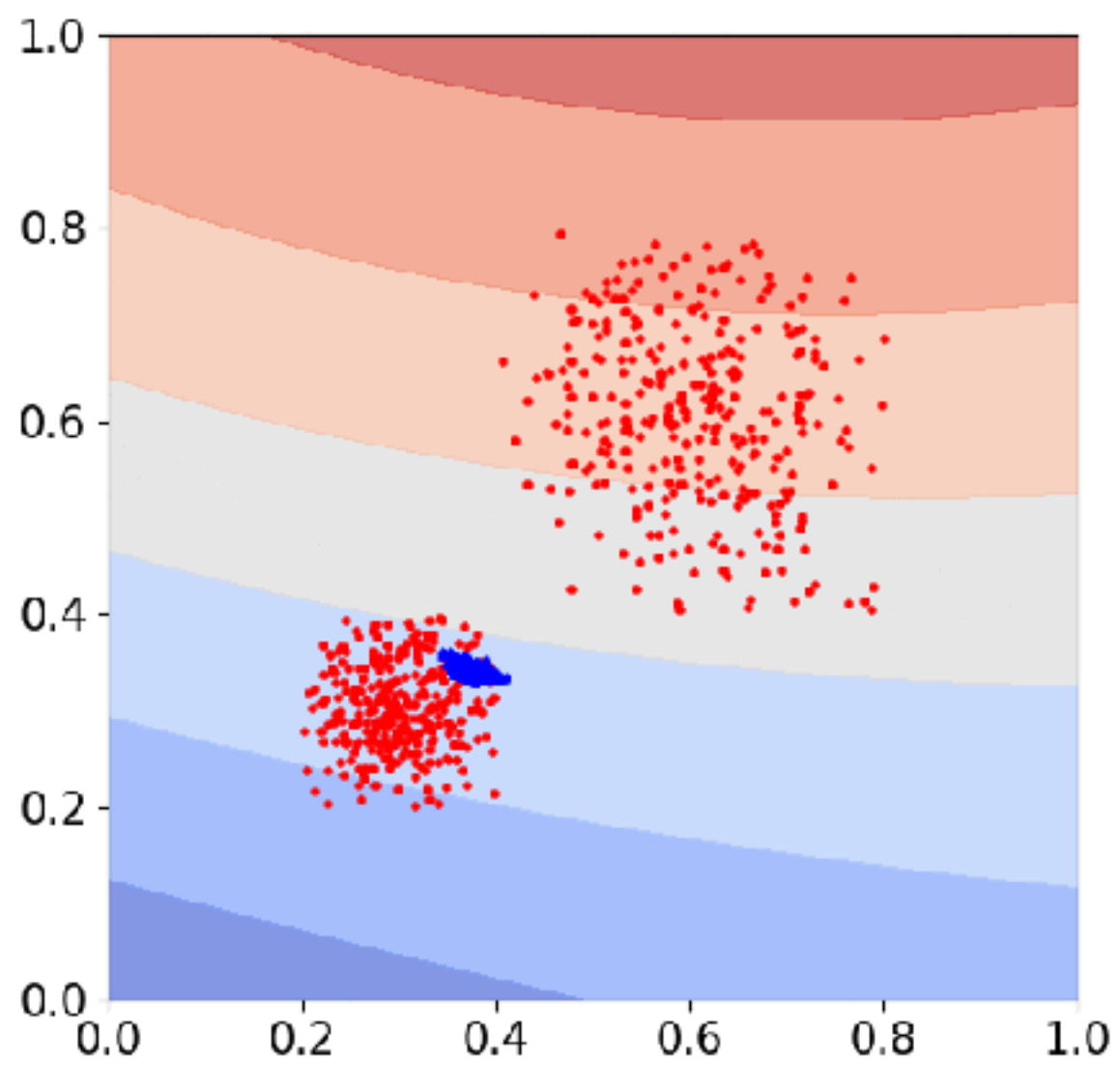
Generator fail due to zero gradient

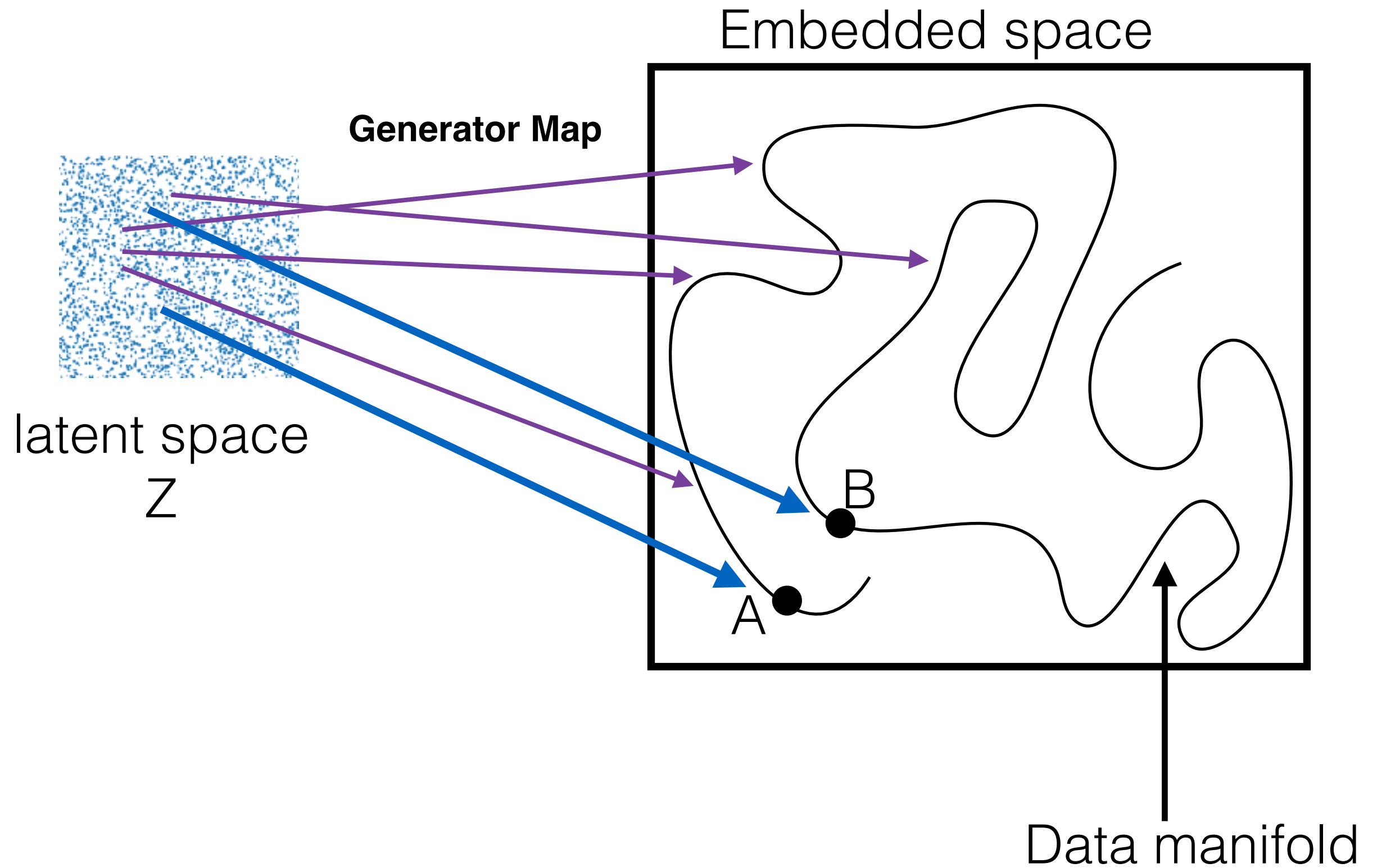


Generator fail due to zero gradient (surrounded)



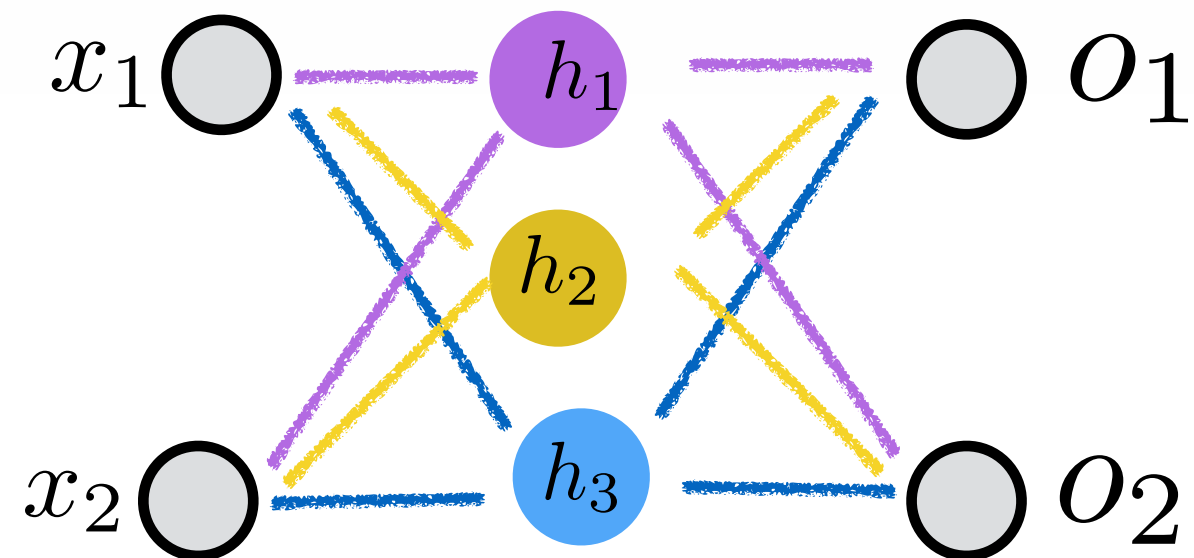
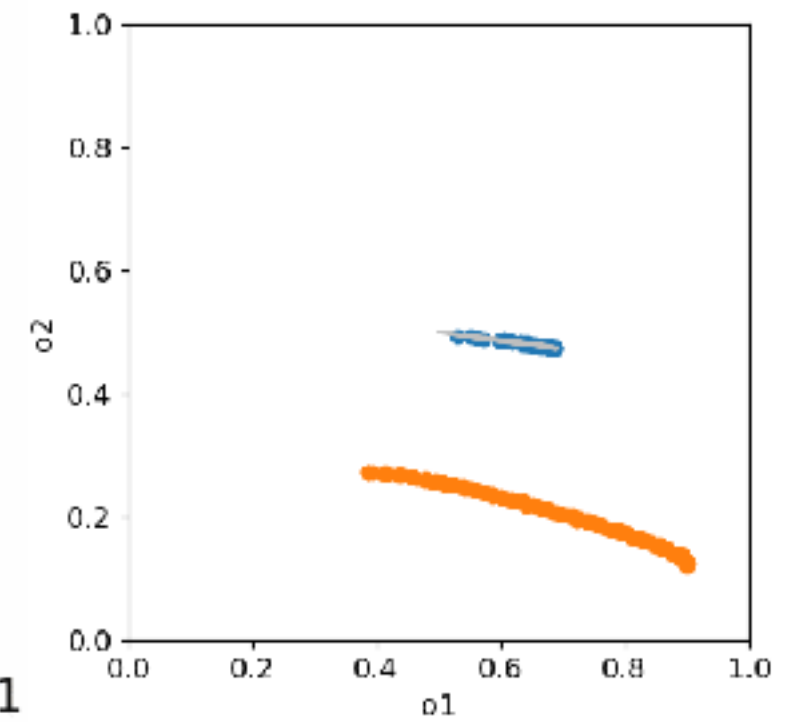
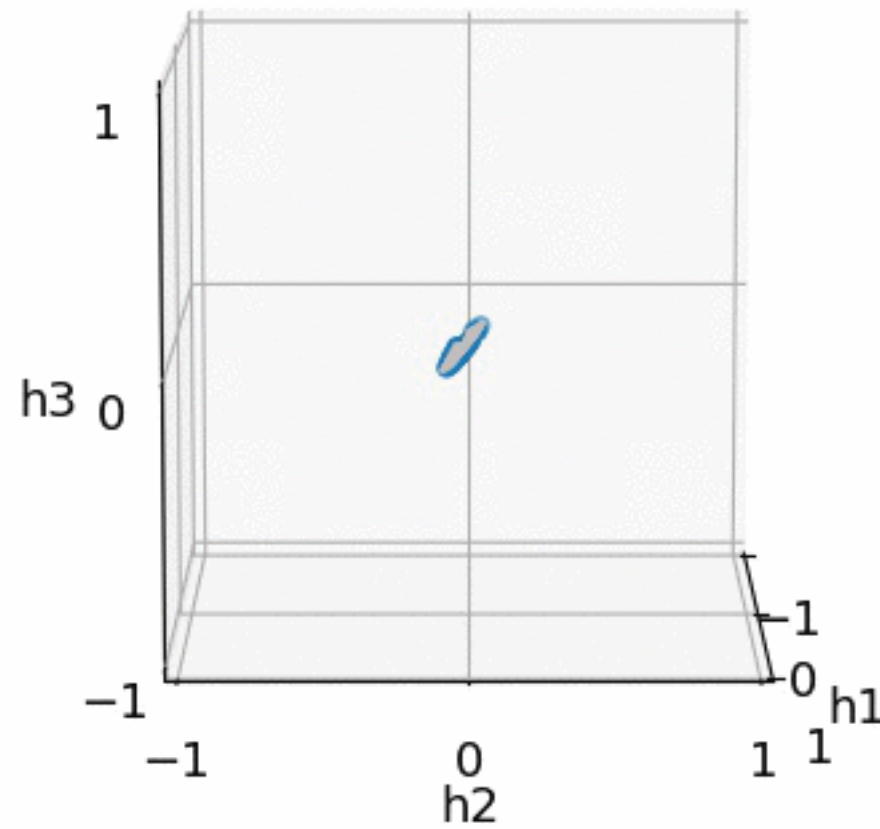
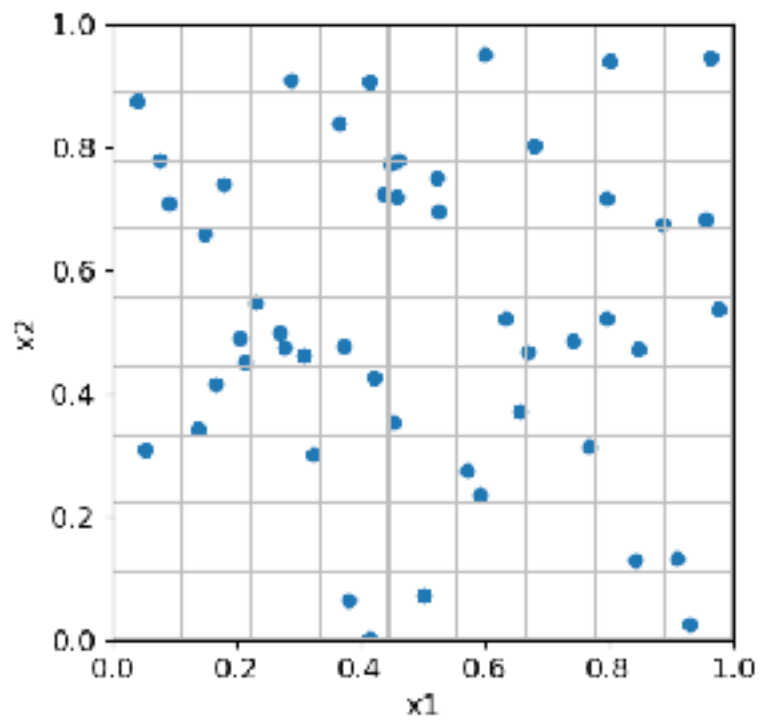
Mode collapse



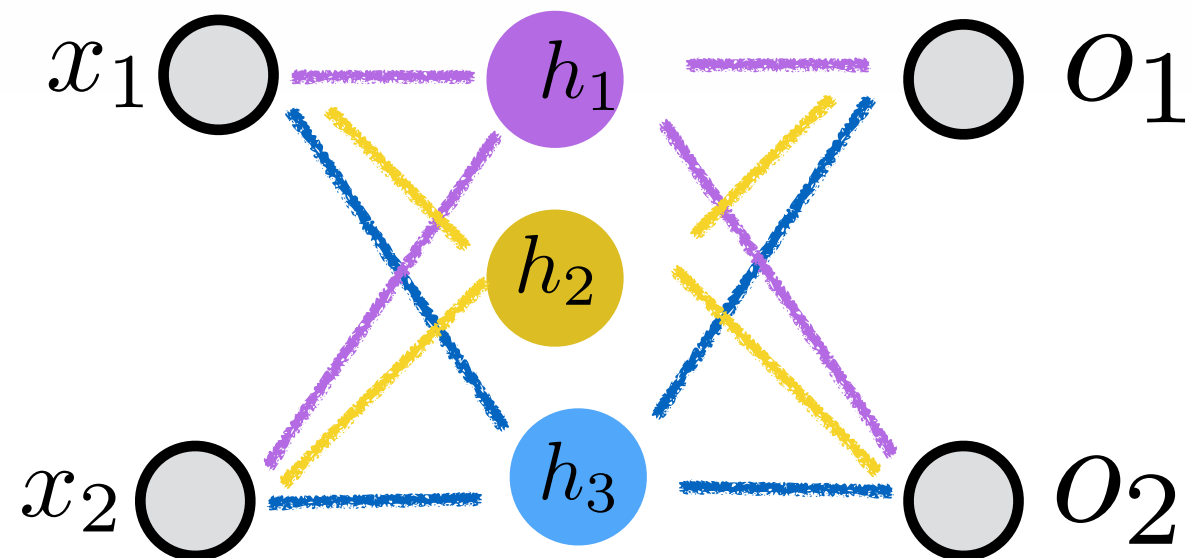
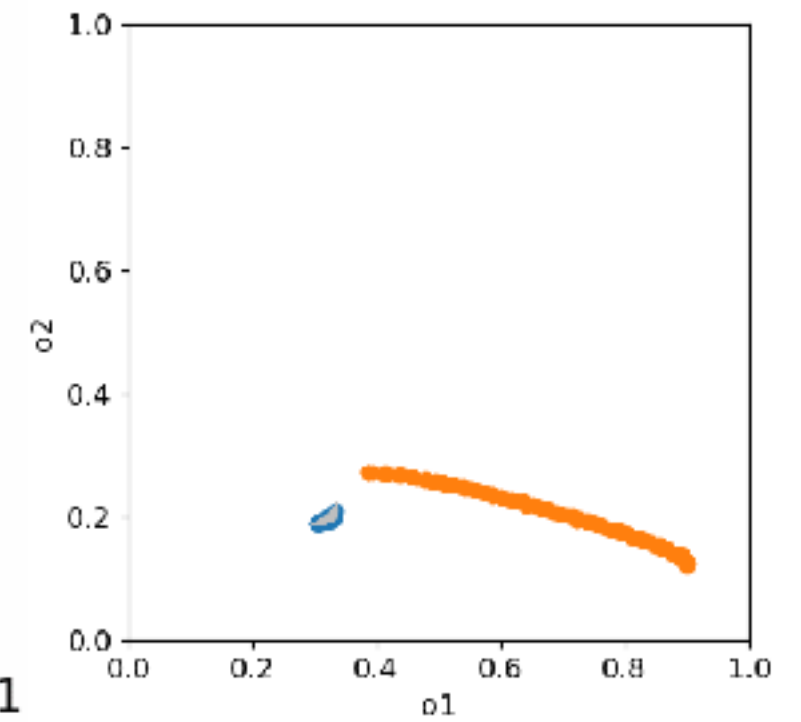
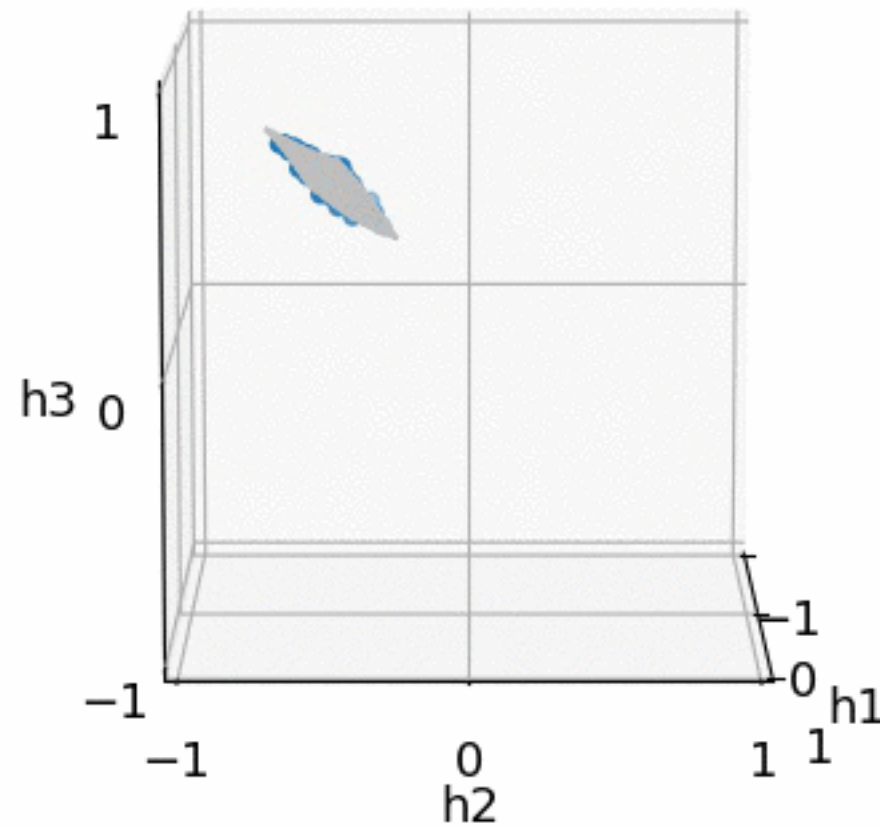
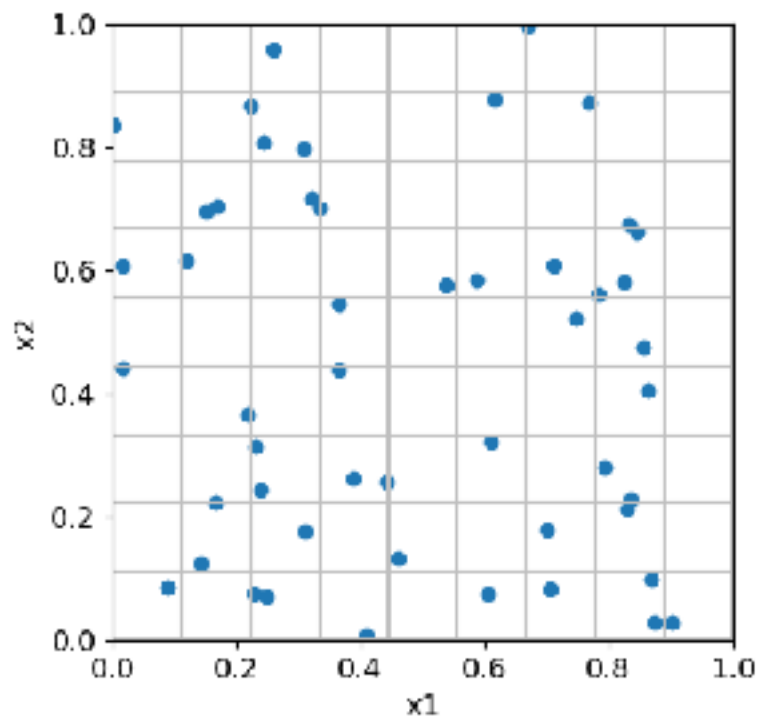


$\text{distance}(A,B) = \text{go along data manifold}$

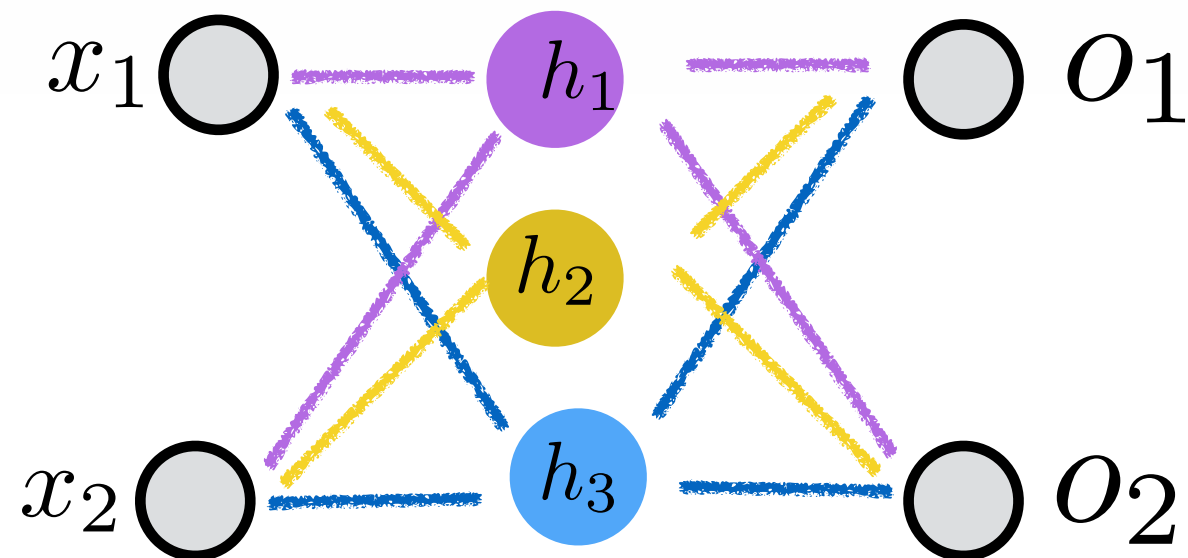
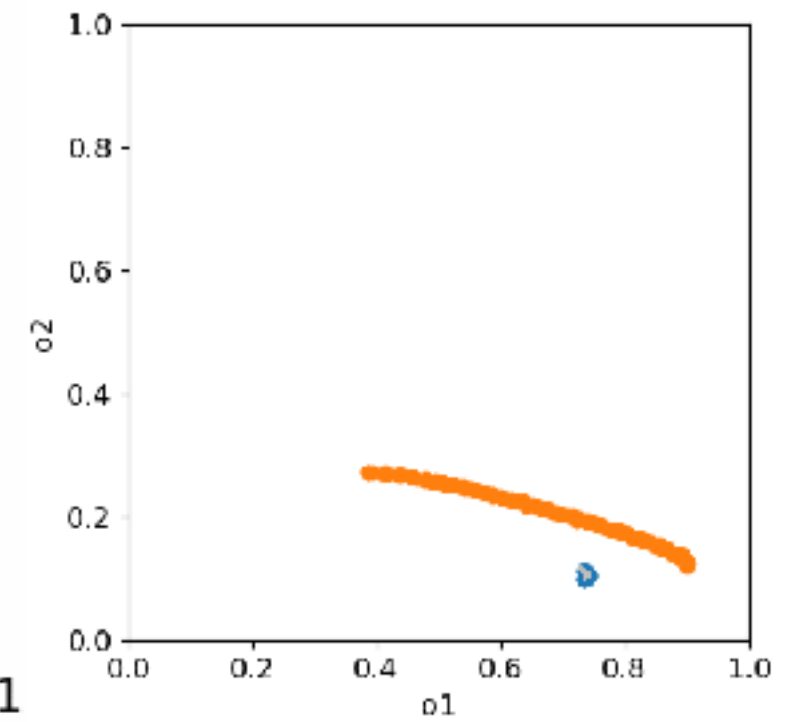
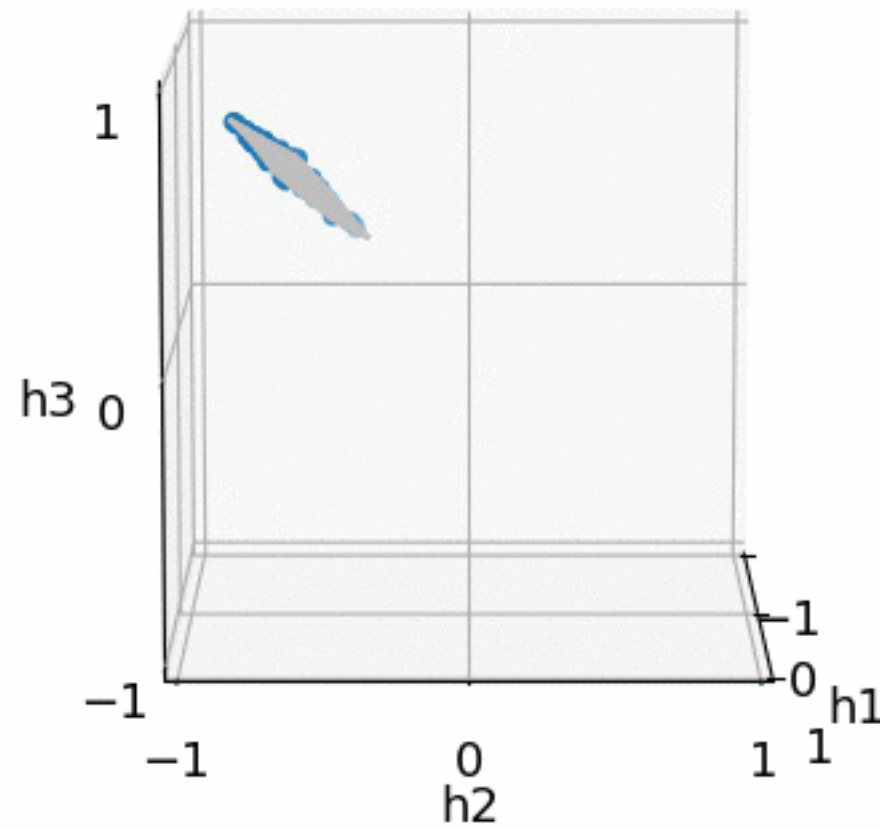
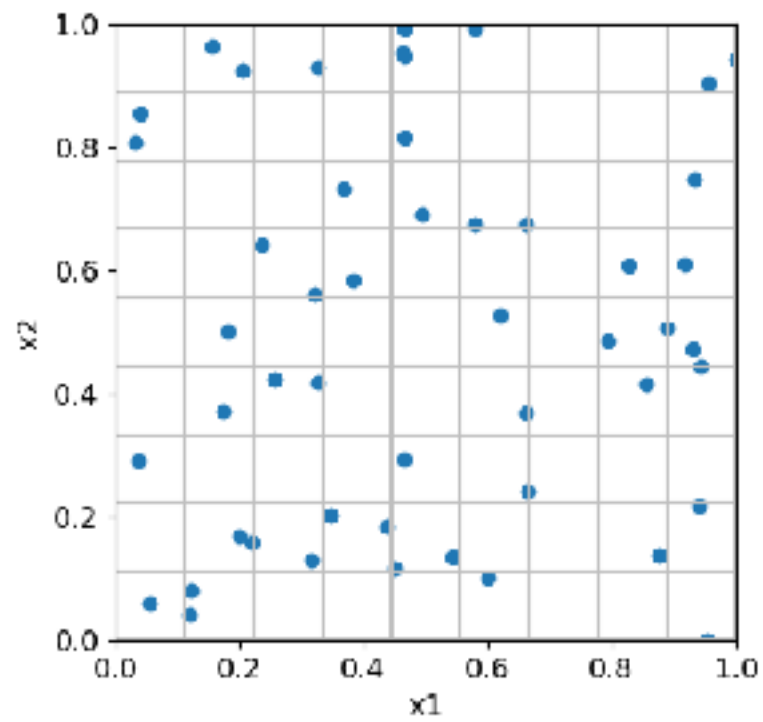
Iteration 0



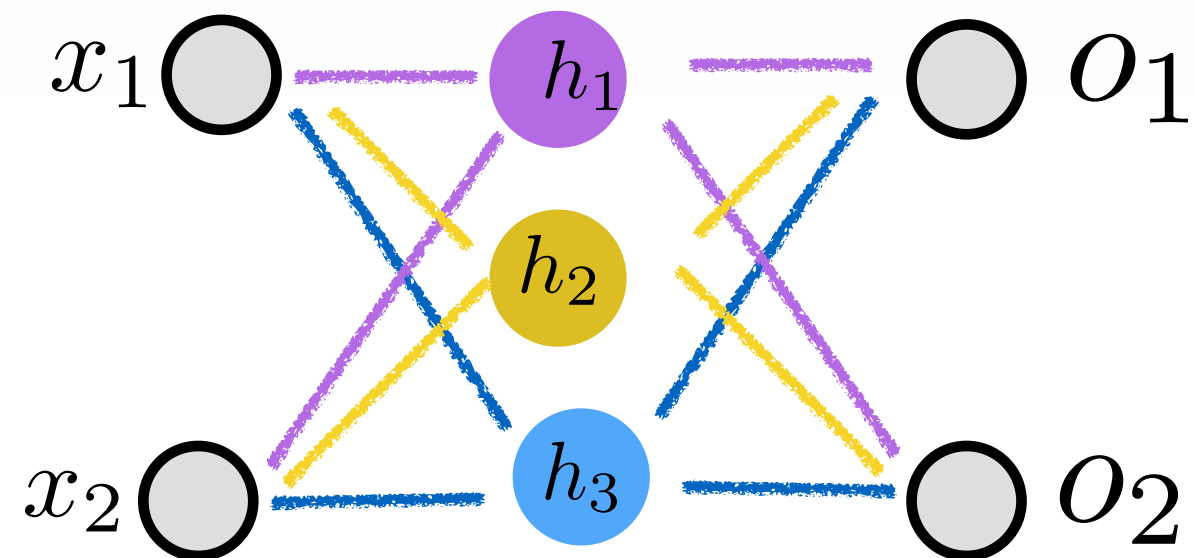
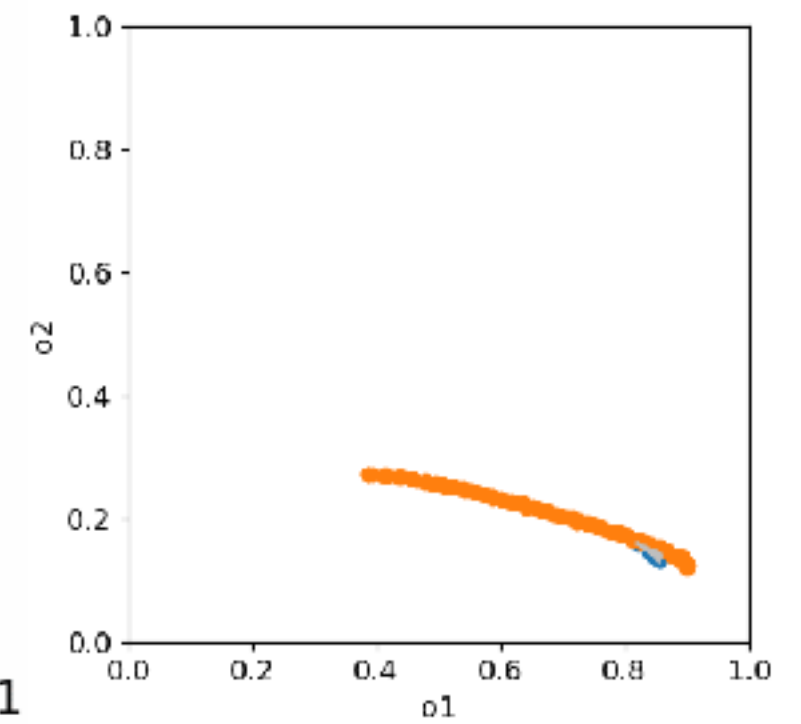
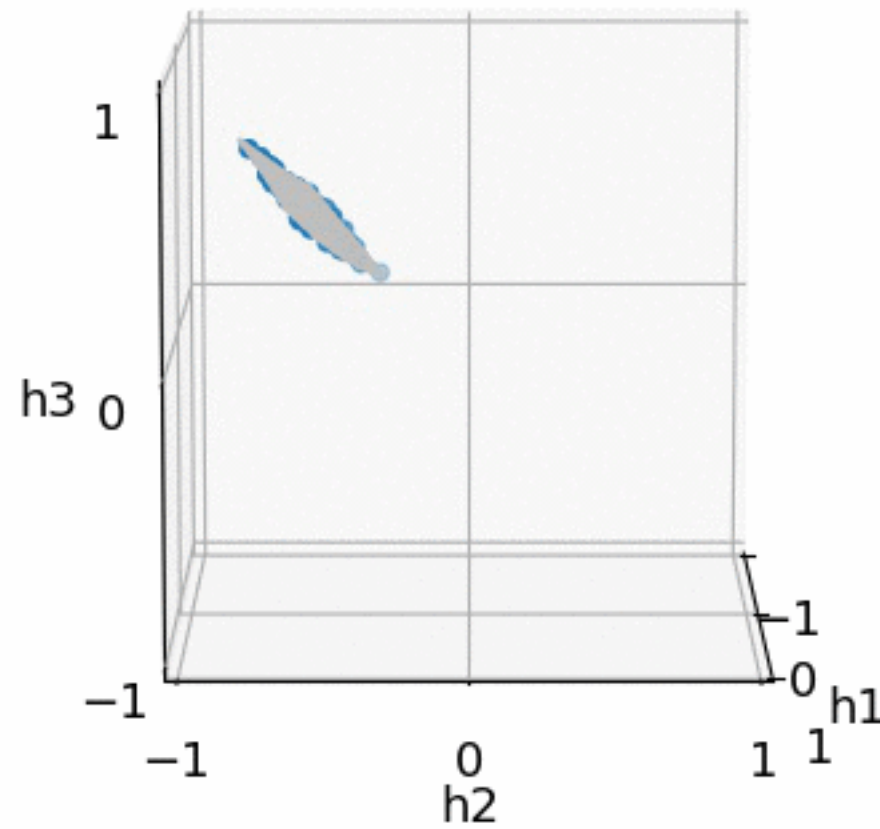
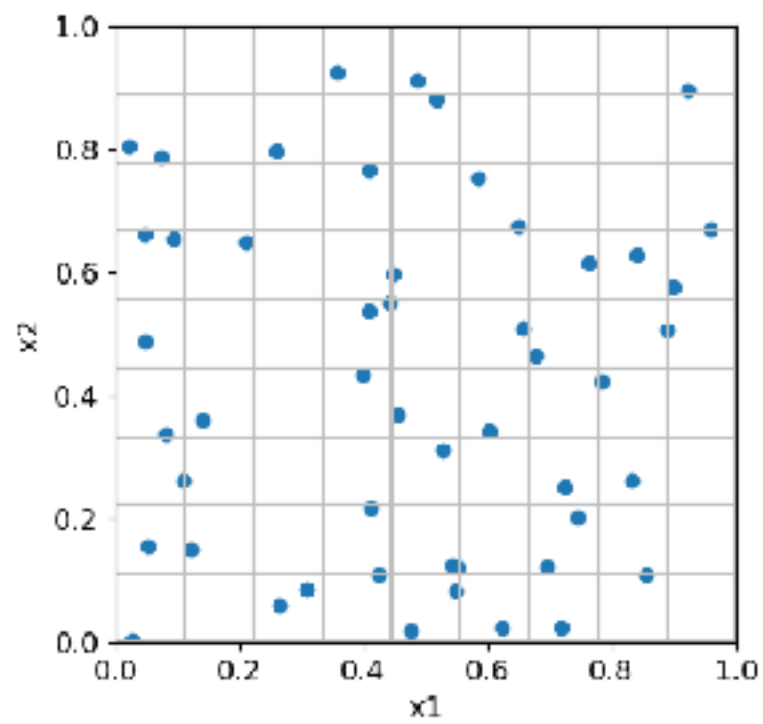
Iteration 50



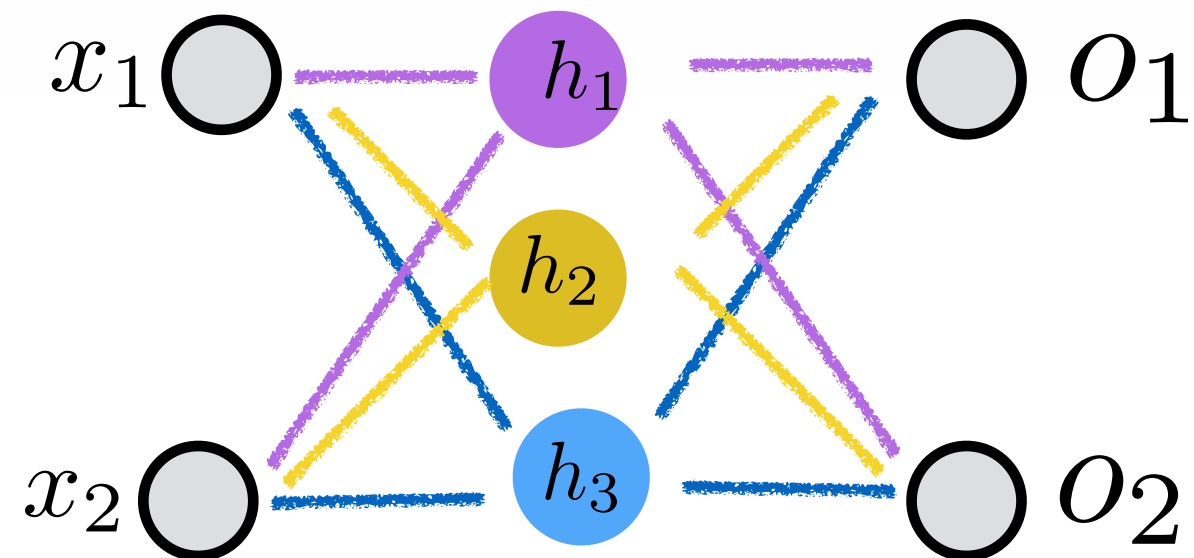
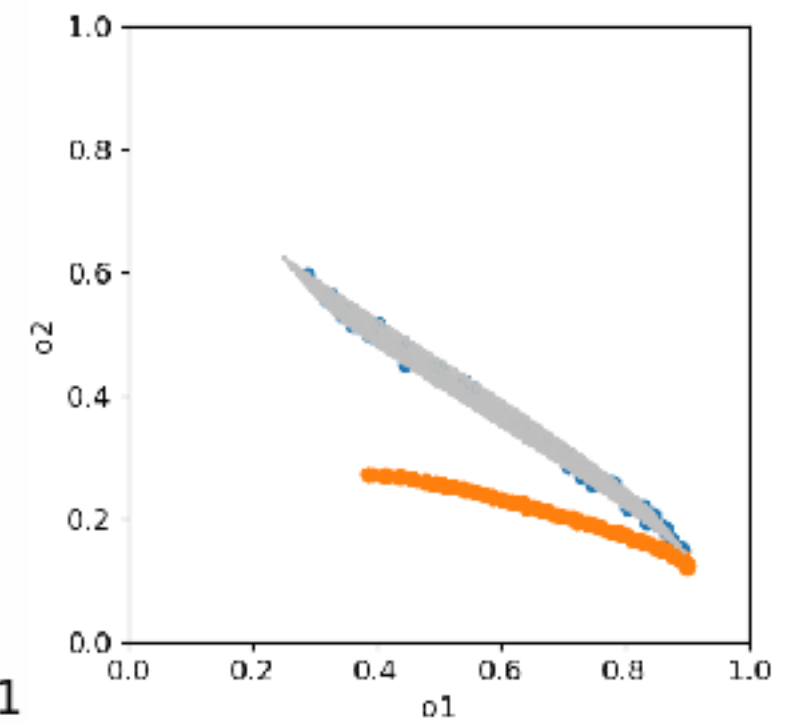
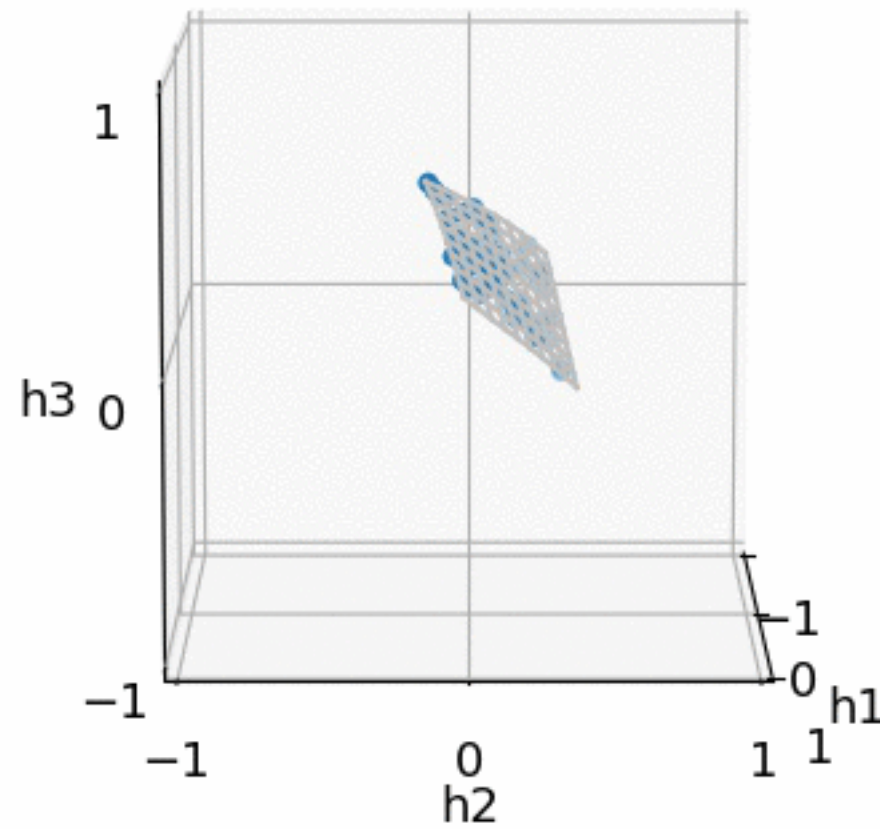
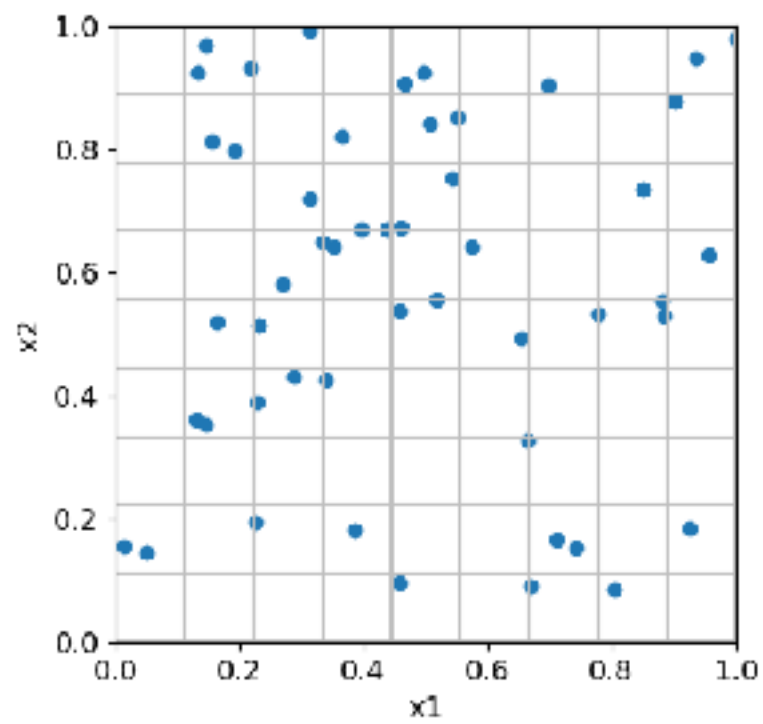
Iteration 100



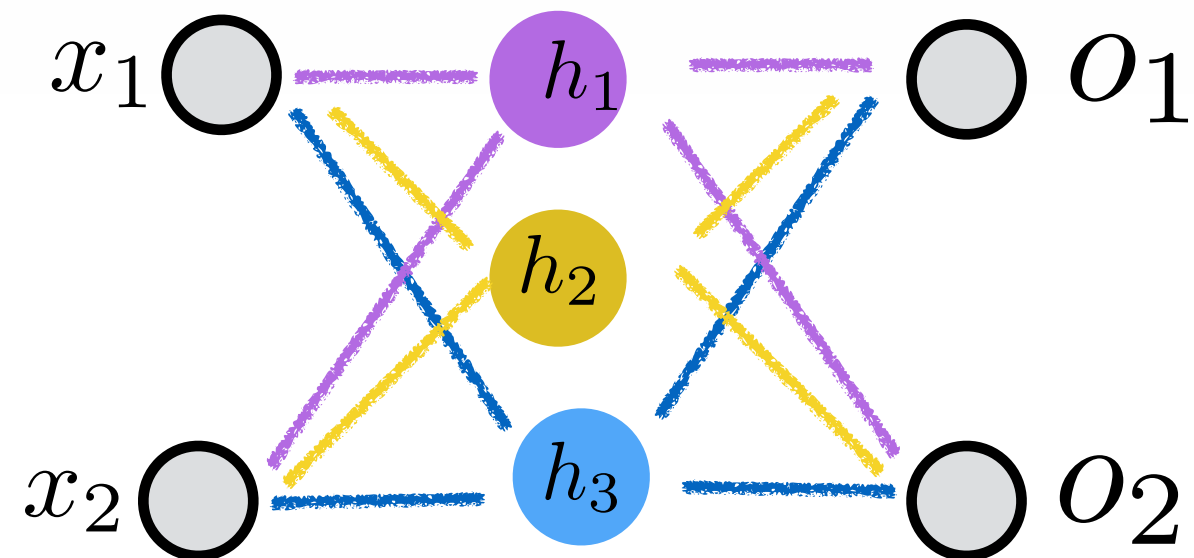
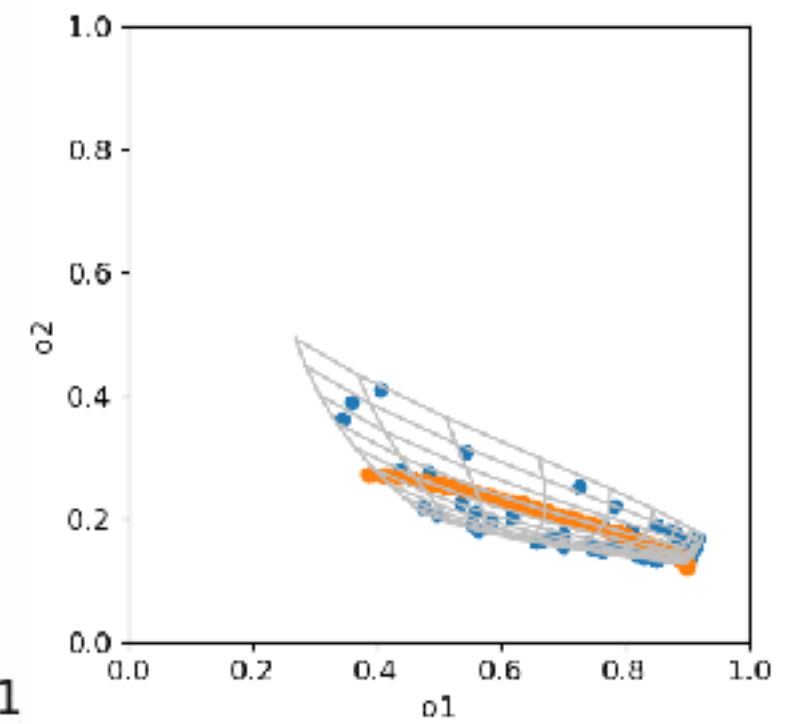
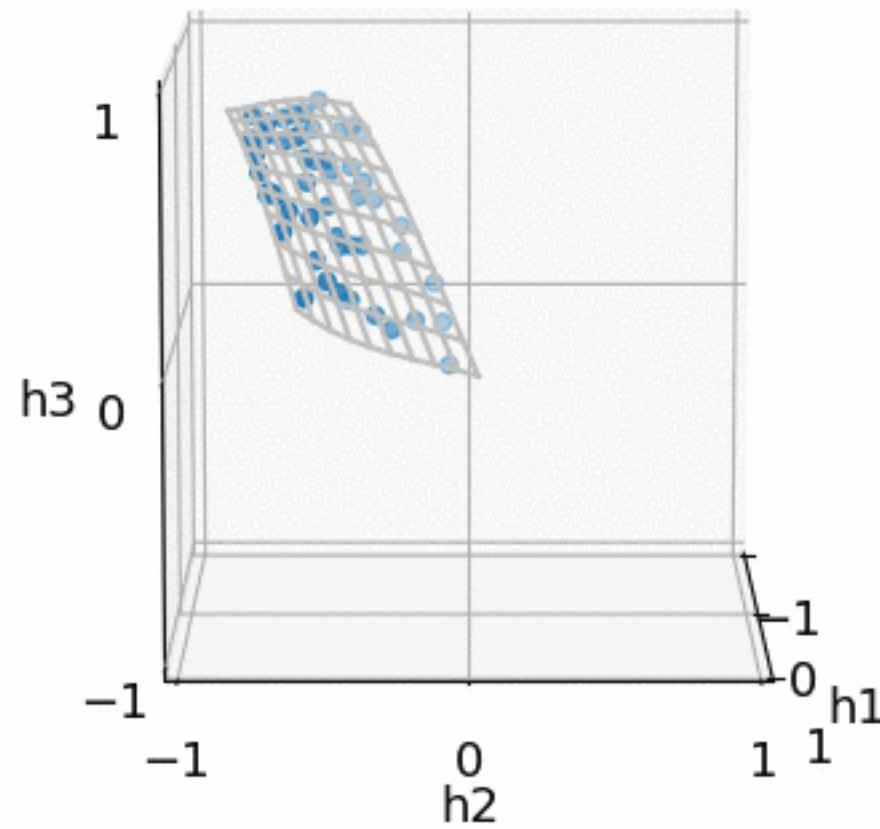
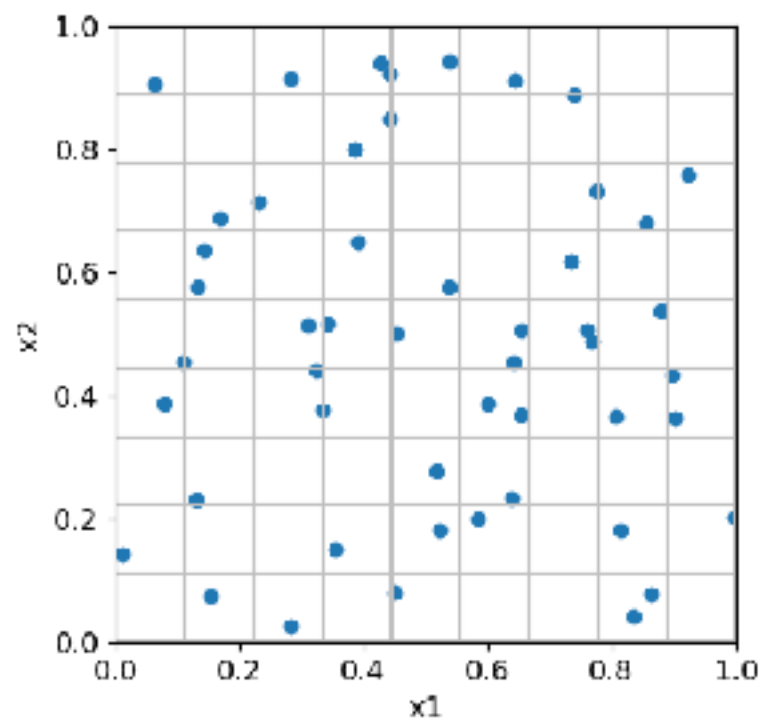
Iteration 200



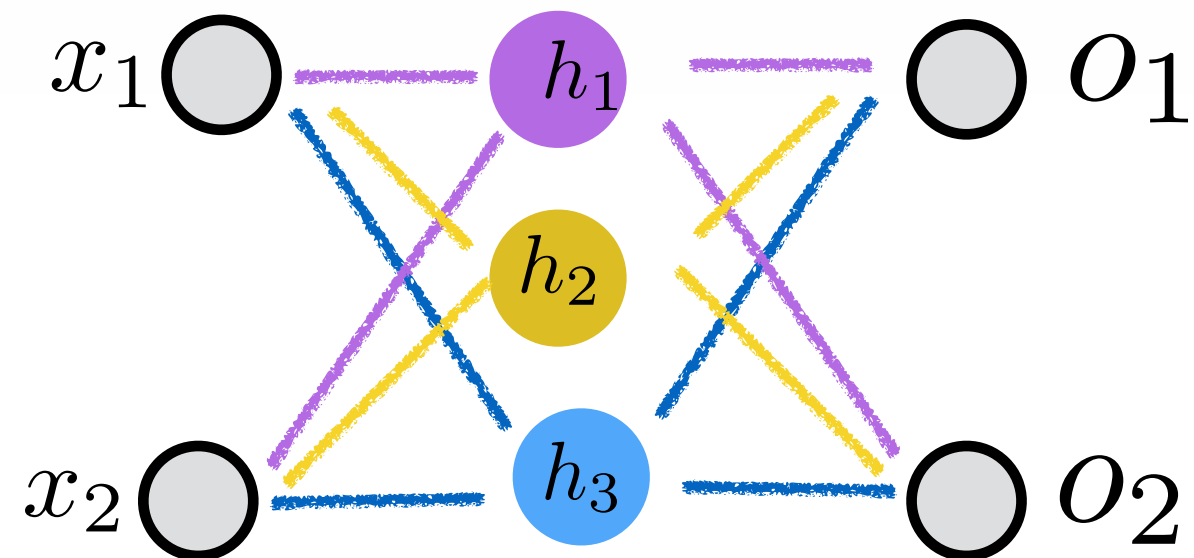
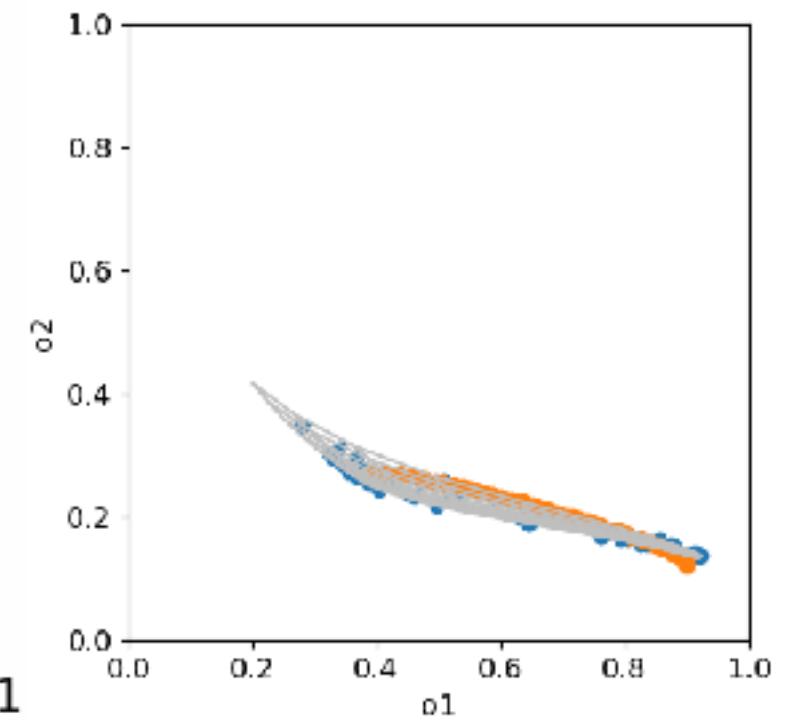
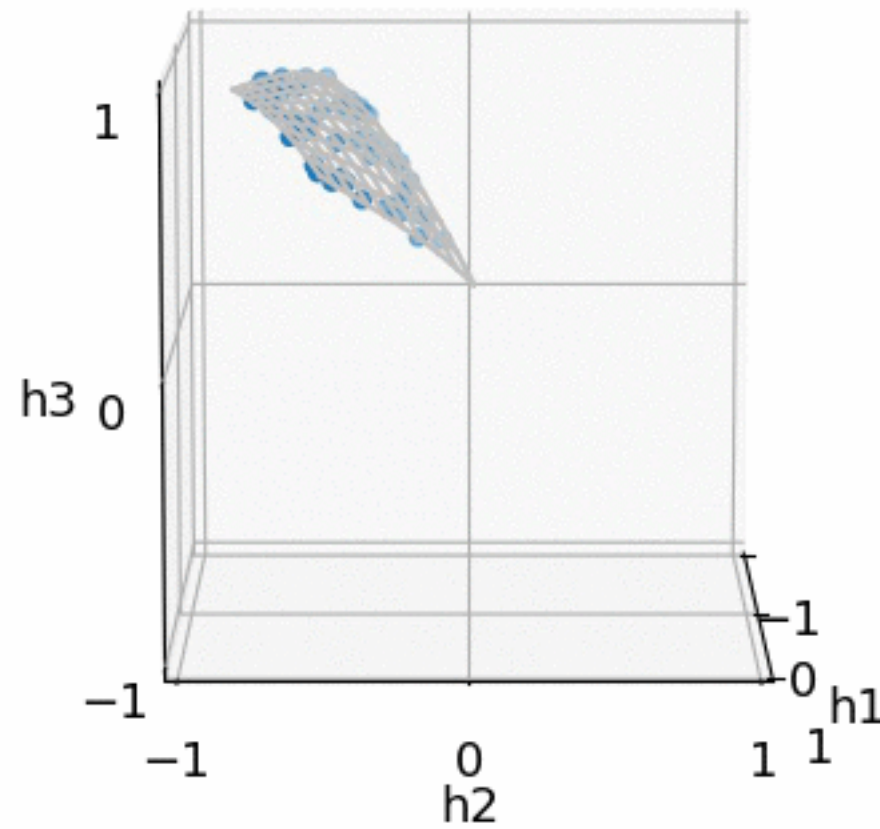
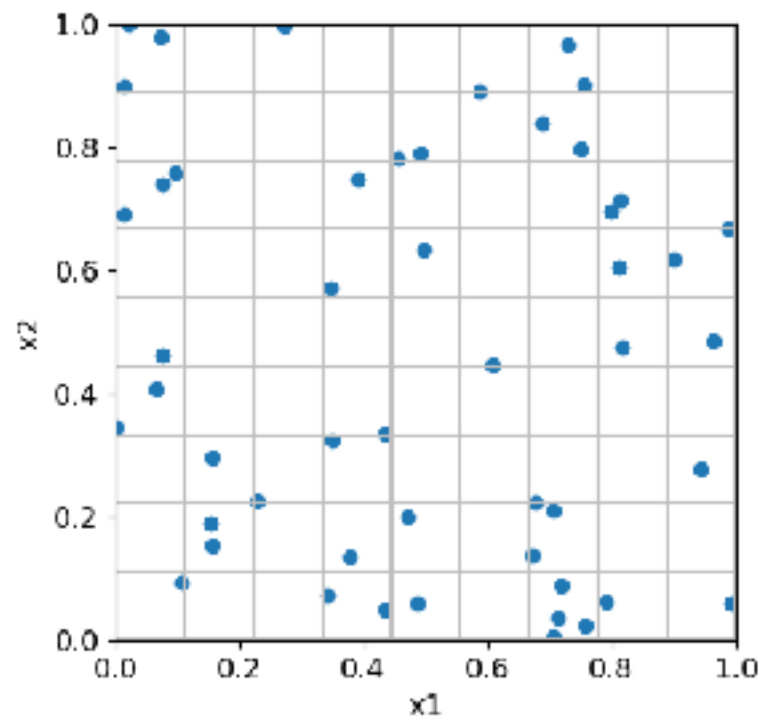
Iteration 300



Iteration 400



Iteration 500



Iteration 580

