

1163-51-1237

Yaim Cooper* (yaim@math.ias.edu). *The critical locus of the loss function of deep neural networks.*

The mathematical heart of deep learning is gradient descent on a loss function L . If gradient descent converges, it will converge to a critical point of L . Thus the geometry of the locus of critical points is of great interest. We will discuss what is known about the critical points of L , including dimension estimates and connectedness results. (Received September 15, 2020)