(a) Comparing the retrieval quality of DrDAM and MrDAM after storing 20 different 64x64x3 images from TinyImagenet into memory and occluding the lower 40% of each query (extending Fig. 1 of the original paper). In this case, the memory matrix of MrDAM is of shape $(20, 12288)$ while the memory tensor of DrDAM is configured at $Y = 2e5$; all other configurations match those in appendix C of the original paper. Top: visualizing the query image. Middle: Retrieved representations from DrDAM. Bottom: (ground truth) Visualizing the retrievals of MrDAM.
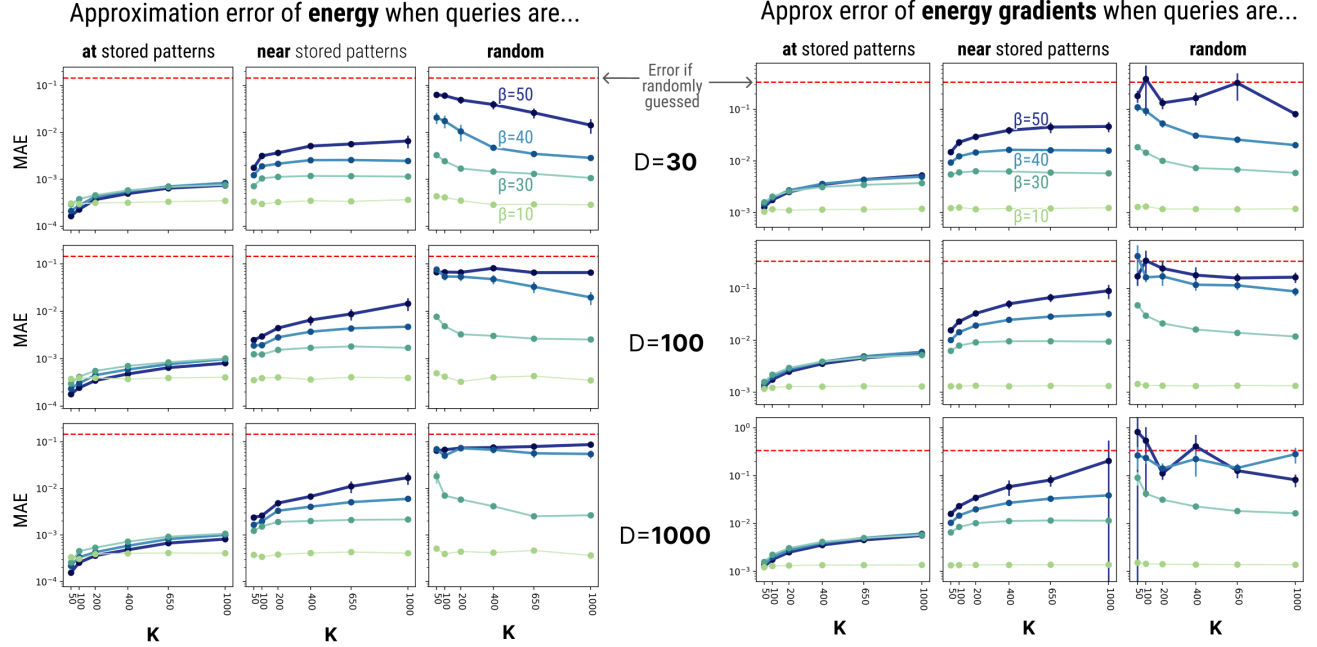
(b) Approximation error increases as the number of stored patterns K increases (except at random starting positions, where more stored patterns increases the probability that random patterns are closer to a memory), keeping $Y = 2e5$ constant across all experiments. This figure reproduces the experimental design in Fig. 2 of the original paper.
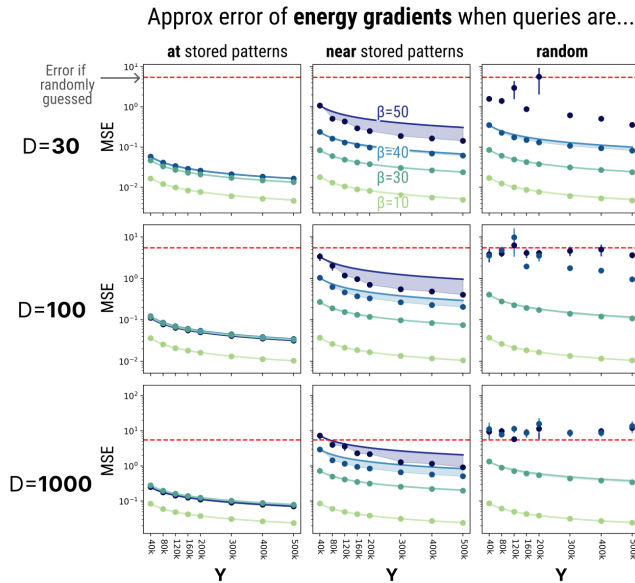
(c) The shaded area represents gap between the theoretical upper bound in Thm. 2 and the empirical results (upper bound is plotted as $\frac{C}{\sqrt{Y}}$, where C is chosen to intersect the maximum MSE from the empirical results). We conclude that the empirical results match the predicted scaling, though the bound gets looser as β increases and D increases.