



Figure 2: Effects of varying the ratio of convolution filters to scattering filters in the first layer of Alexnet. Left shows validation accuracy and right shows first-layer convolutional filters, sorted by importance (number shows classification accuracy when a filter is removed). Number of filters in first layer (from top to bottom): 75 scat, 16 conv + 48 scat, 37 conv + 27 scat, 64 conv. Networks with more scattering filters train faster.