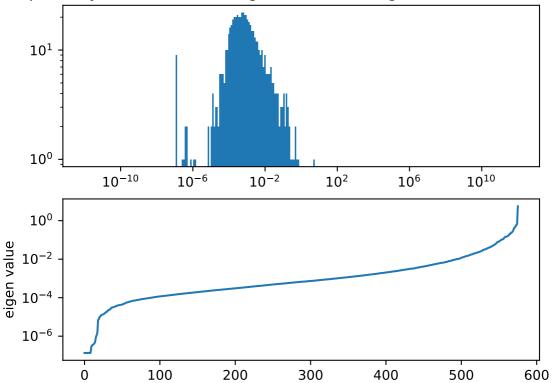
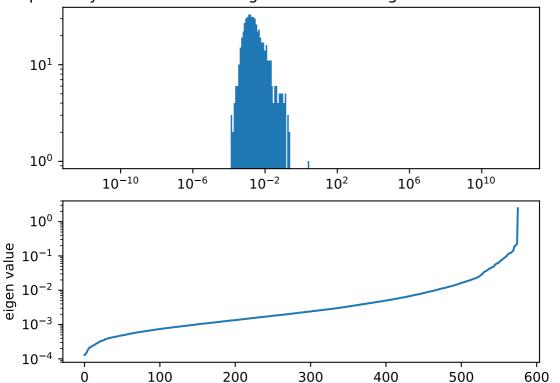
ep: 99 conv1 maxeig: 5.8e+01 mineig: 3.9e-03 con: 1.5e+04  $3 \times 10^{0}$  $2 \times 10^{0}$ 10<sup>0</sup> 1010 10-10 10-6 10-2 10<sup>2</sup> 10<sup>6</sup> 10<sup>1</sup> eigen value 10<sup>-1</sup>  $10^{-2}$ 10 15 25 20

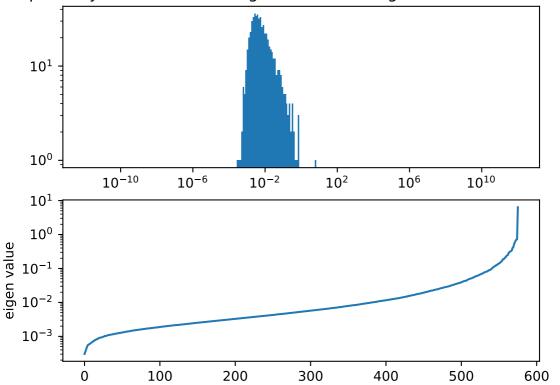
ep: 99 layer1.0.conv1 maxeig: 5.6e+00 mineig: 1.3e-07 con: 4.2e+07



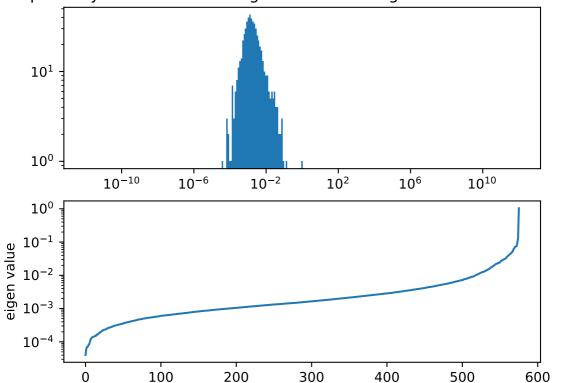
ep: 99 layer1.0.conv2 maxeig: 2.5e+00 mineig: 1.3e-04 con: 1.9e+04



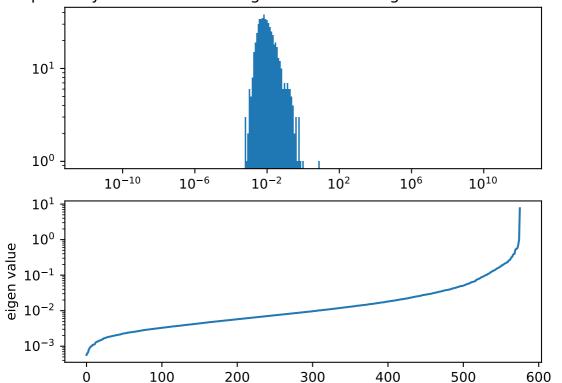
ep: 99 layer1.1.conv1 maxeig: 6.3e+00 mineig: 3.0e-04 con: 2.1e+04



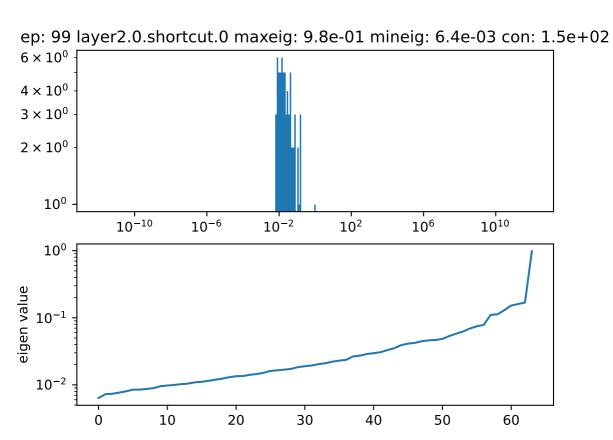
ep: 99 layer1.1.conv2 maxeig: 1.0e+00 mineig: 4.0e-05 con: 2.6e+04



ep: 99 layer2.0.conv1 maxeig: 7.6e+00 mineig: 5.7e-04 con: 1.3e+04



ep: 99 layer2.0.conv2 maxeig: 2.4e+00 mineig: 5.2e-04 con: 4.7e+03  $10^{2}$  $10^{1}$ 10<sup>0</sup> 1010 10-10  $10^{-6}$  $10^{-2}$ 10<sup>2</sup> 10<sup>6</sup> 10<sup>0</sup> 10<sup>-3</sup> 200 400 600 800 1000 1200



ep: 99 layer2.1.conv1 maxeig: 6.2e+00 mineig: 1.1e-04 con: 5.8e+04  $10^{2}$  $10^{1}$  $10^{0}$ 1010 10-10 10-2  $10^{-6}$ 10<sup>2</sup> 10<sup>6</sup>  $10^{1}$ eigen value  $10^{-1}$ 10<sup>-3</sup> 200 400 600 800 1000 1200

ep: 99 layer2.1.conv2 maxeig: 3.5e-01 mineig: 9.4e-05 con: 3.7e+03  $10^{2}$  $10^{1}$ 10<sup>0</sup> 1010 10<sup>-10</sup> 10<sup>6</sup>  $10^{-6}$  $10^{-2}$ 10<sup>2</sup>  $10^{-1}$ e ide of a second 10-2  $10^{-4}$ 200 400 600 800 1000 1200

ep: 99 layer3.0.conv1 maxeig: 6.5e+00 mineig: 1.0e-03 con: 6.5e+03  $10^{2}$  $10^{1}$  $10^{0}$ 1010 10-10 10<sup>6</sup>  $10^{-6}$  $10^{-2}$ 10<sup>2</sup>  $10^{1}$ 10<sup>0</sup> e identification of the second 10<sup>-3</sup>

600

800

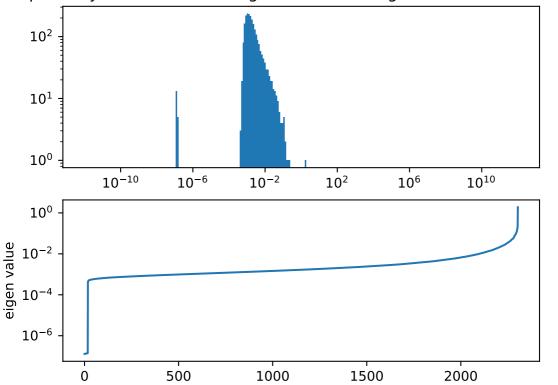
1000

1200

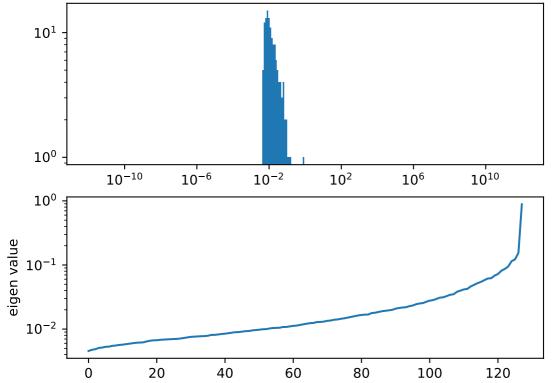
200

400

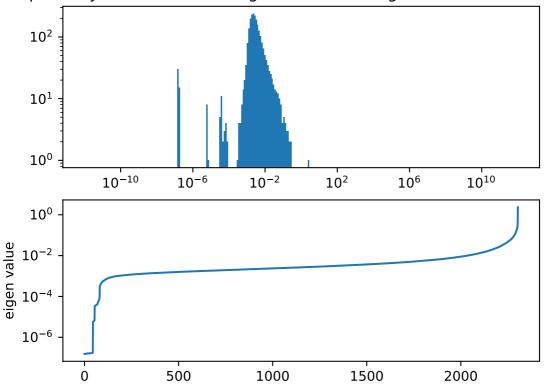
ep: 99 layer3.0.conv2 maxeig: 1.9e+00 mineig: 1.3e-07 con: 1.5e+07



ep: 99 layer3.0.shortcut.0 maxeig: 8.9e-01 mineig: 4.6e-03 con: 1.9e+02



ep: 99 layer3.1.conv1 maxeig: 2.3e+00 mineig: 1.5e-07 con: 1.5e+07



ep: 99 layer3.1.conv2 maxeig: 3.9e-01 mineig: 6.5e-08 con: 6.0e+06  $10^{2}$  $10^{1}$ 10<sup>0</sup> 1010 10-10  $10^{-6}$ 10-2 10<sup>2</sup> 10<sup>6</sup> eigen value 10<sup>-5</sup>  $10^{-6}$ 

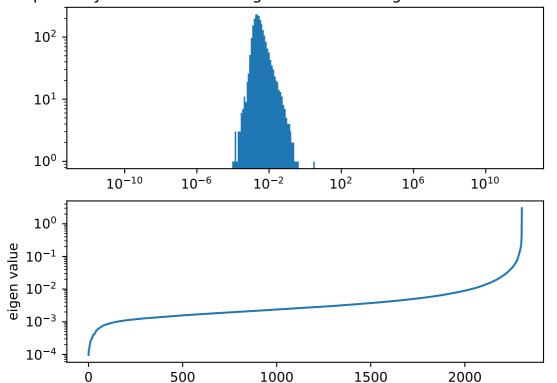
1000

1500

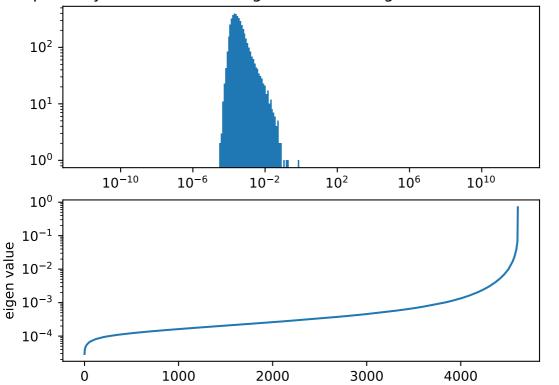
2000

500

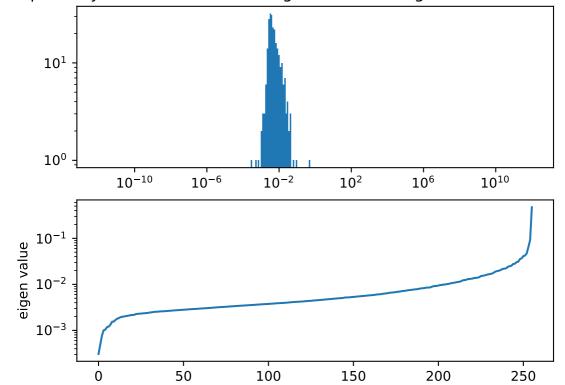
ep: 99 layer4.0.conv1 maxeig: 3.0e+00 mineig: 9.7e-05 con: 3.1e+04



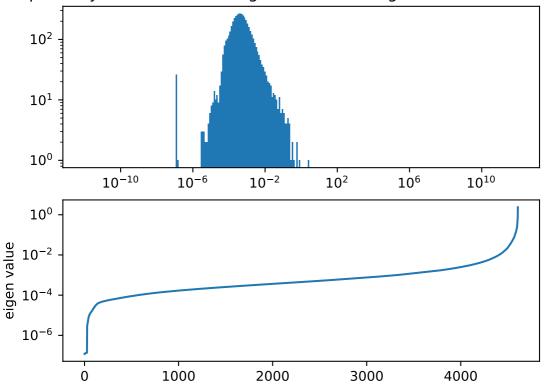
ep: 99 layer4.0.conv2 maxeig: 7.1e-01 mineig: 2.9e-05 con: 2.4e+04



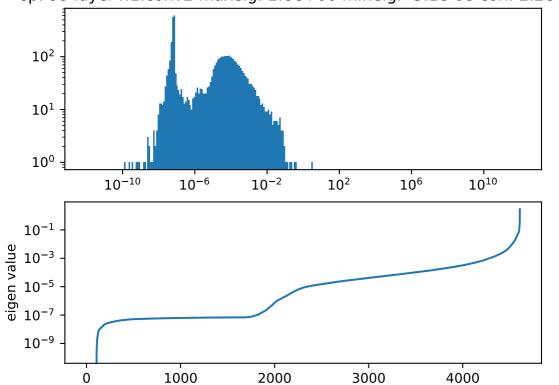
ep: 99 layer4.0.shortcut.0 maxeig: 4.7e-01 mineig: 3.1e-04 con: 1.5e+03



ep: 99 layer4.1.conv1 maxeig: 2.4e+00 mineig: 1.2e-07 con: 2.0e+07



ep: 99 layer4.1.conv2 maxeig: 2.8e+00 mineig: -3.1e-08 con: 2.2e+10



ep: 99 linear maxeig: 1.5e+00 mineig: 4.2e-09 con: 3.5e+08  $10^{1}$ 10<sup>0</sup> 10<sup>10</sup>  $10^{-10}$  $10^{-6}$ 10<sup>2</sup> 10<sup>6</sup>  $10^{-2}$  $10^{-1}$ eigen value 10<sup>-3</sup>  $10^{-5}$  $10^{-7}$ 100 400 500 200 300