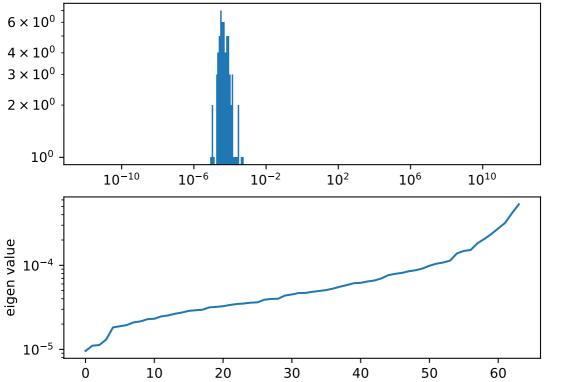
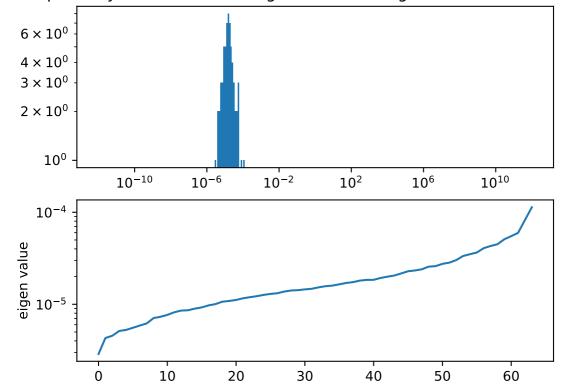
ep: 56 conv1 maxeig: 1.1e+00 mineig: 1.1e-09 con: 1.0e+09  $4 \times 10^{0}$  $3 \times 10^{0}$  $2 \times 10^{0}$ 10<sup>0</sup> 10 10  $10^{-10}$  $10^{-2}$ 10<sup>2</sup> 10<sup>6</sup>  $10^{-6}$ 10<sup>0</sup>  $10^{-2}$ eigen value  $10^{-4}$  $10^{-6}$  $10^{-8}$ 30 50 60 10 20 40

ep: 56 layer1.0.conv1 maxeig: 3.9e-03 mineig: 9.9e-06 con: 3.9e+02  $6 \times 10^{0}$  $4 \times 10^{0}$  $3 \times 10^{0}$  $2 \times 10^{0}$ 10<sup>0</sup> 1010 10-10  $10^{-6}$ 10<sup>2</sup> 10<sup>6</sup>  $10^{-2}$ eigen value 10<sup>-3</sup> 10<sup>-5</sup> 50 60 10 20 30 40

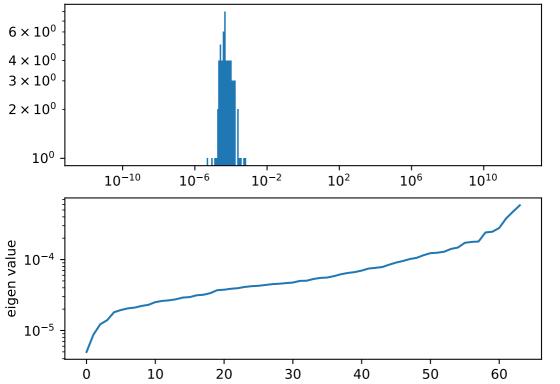
ep: 56 layer1.0.conv2 maxeig: 5.3e-04 mineig: 9.6e-06 con: 5.6e+01



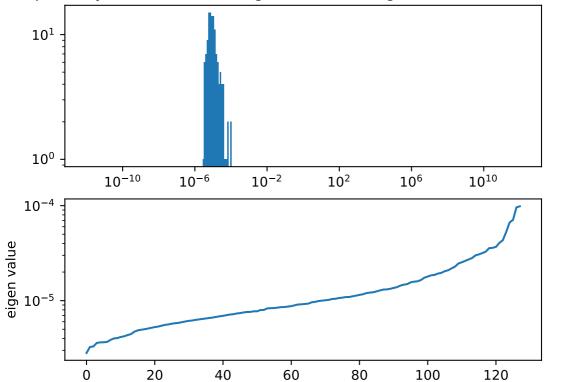
ep: 56 layer1.1.conv1 maxeig: 1.1e-04 mineig: 2.9e-06 con: 3.9e+01



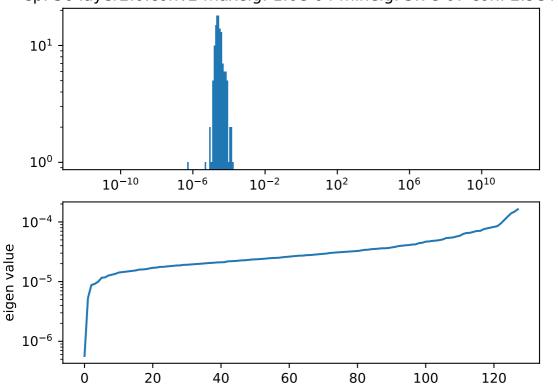
ep: 56 layer1.1.conv2 maxeig: 5.8e-04 mineig: 5.0e-06 con: 1.2e+02



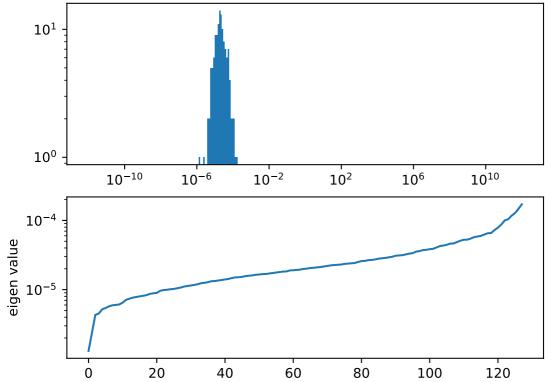
ep: 56 layer2.0.conv1 maxeig: 9.8e-05 mineig: 2.8e-06 con: 3.5e+01



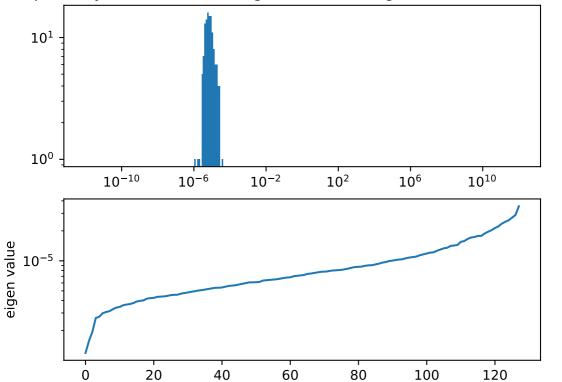
ep: 56 layer2.0.conv2 maxeig: 1.6e-04 mineig: 5.7e-07 con: 2.9e+02



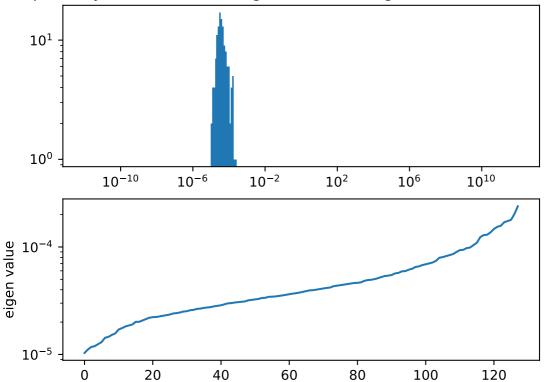
ep: 56 layer2.0.shortcut.0 maxeig: 1.7e-04 mineig: 1.3e-06 con: 1.3e+02



ep: 56 layer2.1.conv1 maxeig: 3.5e-05 mineig: 1.2e-06 con: 3.0e+01



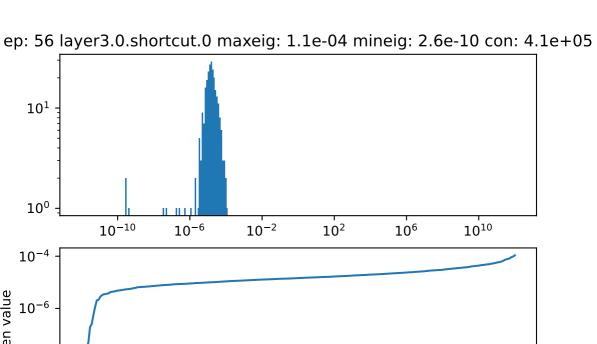
ep: 56 layer2.1.conv2 maxeig: 2.4e-04 mineig: 1.0e-05 con: 2.3e+01

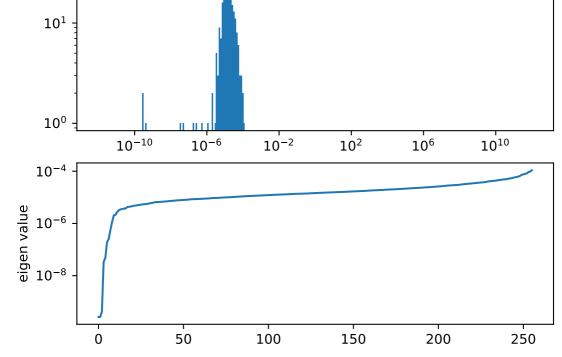


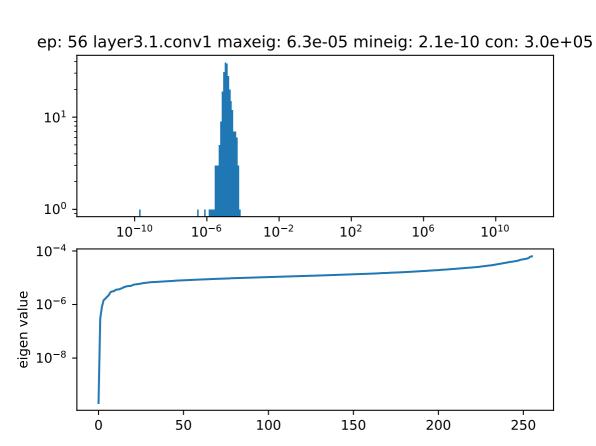
ep: 56 layer3.0.conv1 maxeig: 6.5e-05 mineig: 1.1e-10 con: 6.2e+05 10<sup>1</sup> 10<sup>0</sup> 1010 10-10 10-2 10<sup>2</sup> 10<sup>6</sup>  $10^{-6}$ 10<sup>-5</sup>  $10^{-7}$  $10^{-9}$ 250 50 100 150 200

eigen value

ep: 56 layer3.0.conv2 maxeig: 1.6e-04 mineig: 5.3e-10 con: 3.0e+05 10<sup>1</sup> 10<sup>0</sup> 1010 10-10  $10^{-6}$ 10-2 10<sup>2</sup> 10<sup>6</sup>  $10^{-4}$ eigen value 10<sup>-8</sup> 250 50 100 150 200







ep: 56 layer3.1.conv2 maxeig: 3.1e-04 mineig: 2.4e-06 con: 1.3e+02  $10^{1}$ 10<sup>0</sup> 10<sup>10</sup> 10-10 10<sup>2</sup> 10-6 10-2 10<sup>6</sup> eigen value 10<sup>-4</sup> 250

100

150

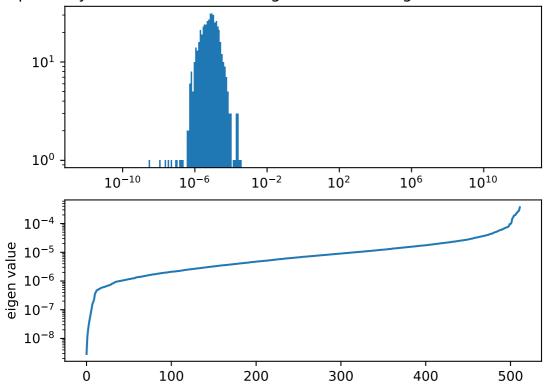
200

50

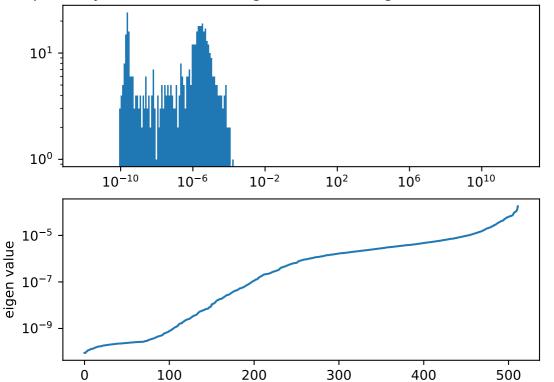
ep: 56 layer4.0.conv1 maxeig: 1.7e-04 mineig: 7.9e-07 con: 2.1e+02  $10^{1}$ 10<sup>0</sup> 10<sup>10</sup> 10-10 10<sup>2</sup> 10-2 10<sup>6</sup>  $10^{-6}$  $10^{-4}$ eigen value 10<sup>-5</sup>  $10^{-6}$ 100 500 200 300 400

ep: 56 layer4.0.conv2 maxeig: 4.3e-04 mineig: 2.4e-08 con: 1.8e+04  $10^{1}$ 10<sup>0</sup> 10 10 10<sup>-10</sup>  $10^{-6}$ 10-2 10<sup>2</sup> 10<sup>6</sup>  $10^{-4}$ eigen value  $10^{-5}$  $10^{-6}$  $10^{-7}$ 100 500 200 300 400

ep: 56 layer4.0.shortcut.0 maxeig: 3.7e-04 mineig: 2.9e-09 con: 1.3e+05



ep: 56 layer4.1.conv1 maxeig: 1.8e-04 mineig: 8.9e-11 con: 2.0e+06



ep: 56 layer4.1.conv2 maxeig: 1.1e-03 mineig: 9.4e-09 con: 1.2e+05

