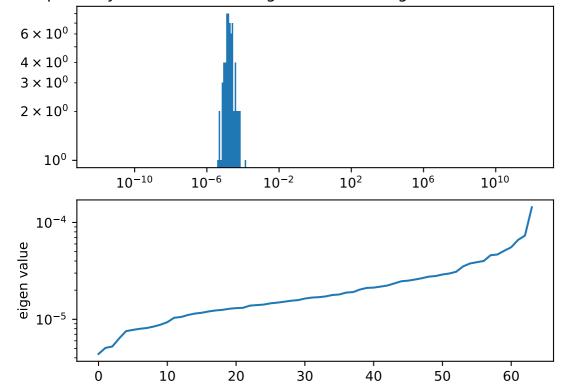
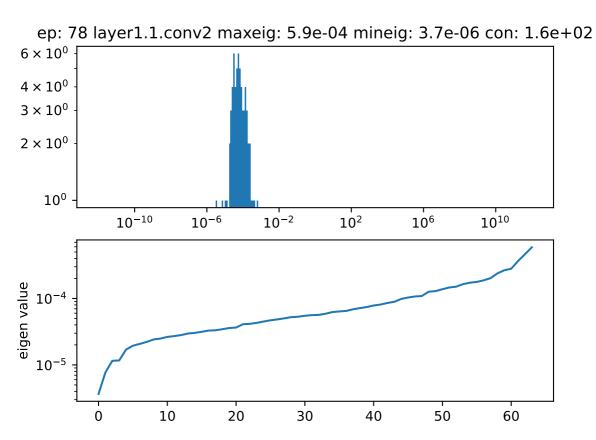


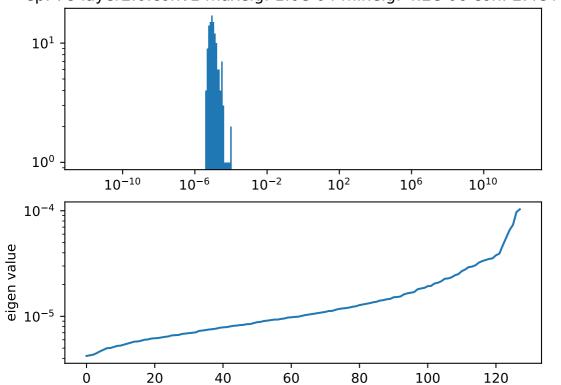
ep: 78 layer1.0.conv2 maxeig: 6.0e-04 mineig: 9.5e-06 con: 6.3e+01  $6 \times 10^{0}$  $4 \times 10^{0}$  $3 \times 10^{0}$  $2 \times 10^{0}$ 10<sup>0</sup> 10 10 10-10  $10^{-6}$ 10-2 10<sup>2</sup> 10<sup>6</sup> eigen value  $10^{-4}$ 10<sup>-5</sup> 50 60 10 20 30 40

ep: 78 layer1.1.conv1 maxeig: 1.4e-04 mineig: 4.4e-06 con: 3.3e+01



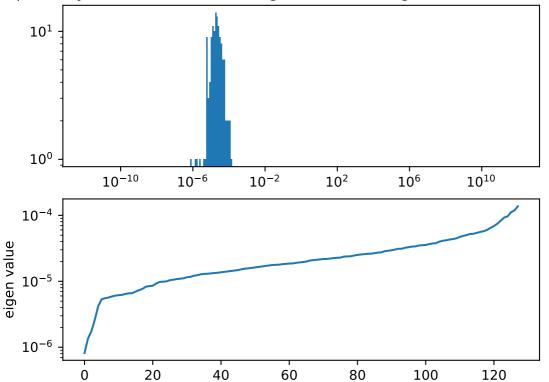


ep: 78 layer2.0.conv1 maxeig: 1.0e-04 mineig: 4.2e-06 con: 2.4e+01



ep: 78 layer2.0.conv2 maxeig: 1.5e-04 mineig: 4.2e-07 con: 3.5e+02  $10^{1}$ 10<sup>0</sup> 10<sup>10</sup> 10<sup>2</sup> 10-10 10-2 10<sup>6</sup>  $10^{-6}$  $10^{-4}$  $10^{-5}$  $10^{-6}$ 60 100 20 40 80 120

ep: 78 layer2.0.shortcut.0 maxeig: 1.4e-04 mineig: 8.2e-07 con: 1.7e+02



ep: 78 layer2.1.conv1 maxeig: 3.2e-05 mineig: 1.8e-06 con: 1.7e+01  $10^{1}$ 10<sup>0</sup> 10<sup>10</sup> 10<sup>2</sup> 10-10  $10^{-6}$ 10-2 10<sup>6</sup> eigen value 10<sup>-5</sup>

60

100

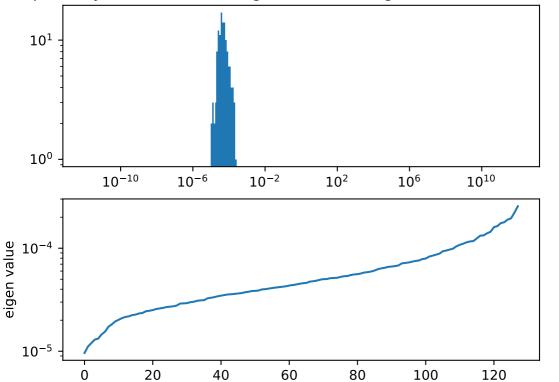
80

120

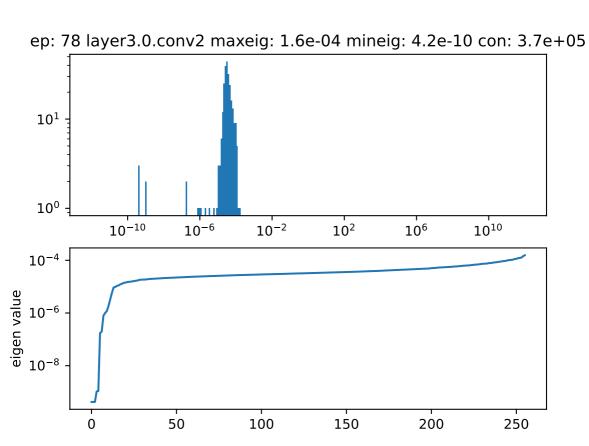
20

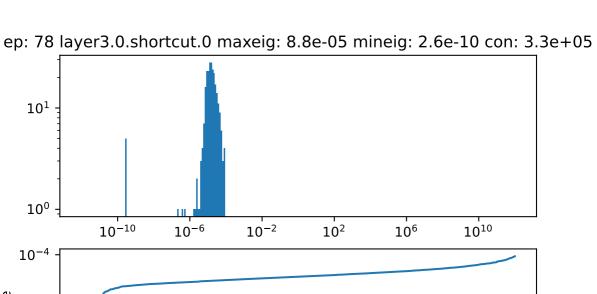
40

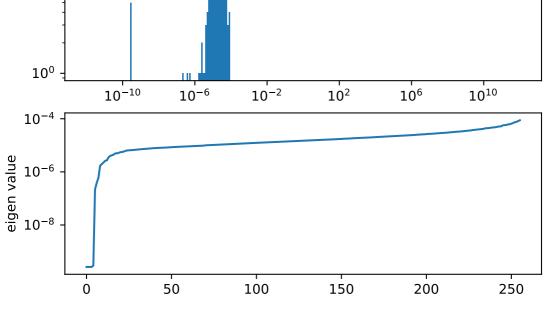
ep: 78 layer2.1.conv2 maxeig: 2.6e-04 mineig: 9.6e-06 con: 2.7e+01

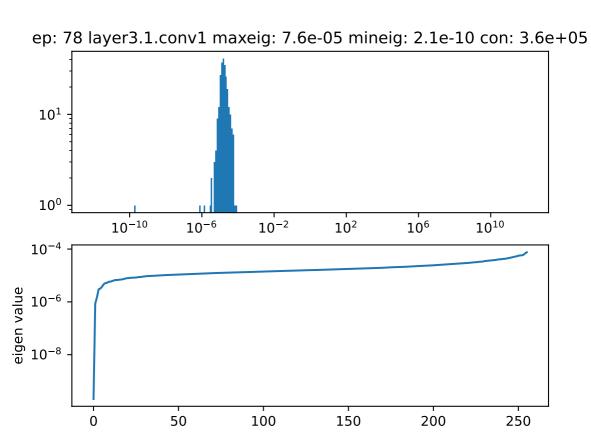


ep: 78 layer3.0.conv1 maxeig: 6.2e-05 mineig: 1.1e-10 con: 5.9e+05  $10^{1}$ 10<sup>0</sup> 1010 10-10 10-2 10<sup>2</sup> 10<sup>6</sup>  $10^{-6}$ 10<sup>-5</sup>  $10^{-7}$  $10^{-9}$ 250 50 100 150 200







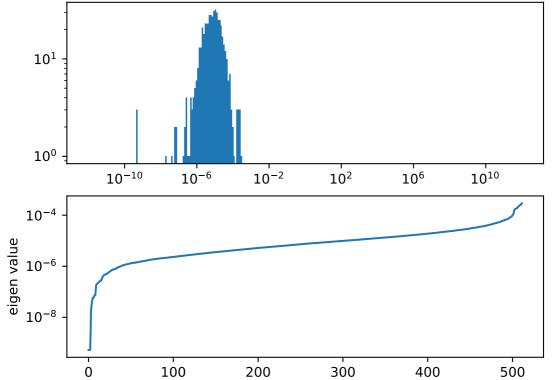


ep: 78 layer3.1.conv2 maxeig: 3.8e-04 mineig: 3.5e-06 con: 1.1e+02  $10^{1}$ 10<sup>0</sup> 10<sup>10</sup> 10-10 10<sup>2</sup> 10-2 10<sup>6</sup>  $10^{-6}$ eigen value  $10^{-4}$  $10^{-5}$ 250 50 100 150 200

ep: 78 layer4.0.conv1 maxeig: 1.7e-04 mineig: 1.2e-06 con: 1.4e+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  $10^{-5}$  $10^{-6}$ 100 500 200 300 400

ep: 78 layer4.0.conv2 maxeig: 4.7e-04 mineig: 1.0e-09 con: 4.5e+05  $10^{1}$ 10<sup>0</sup> 10<sup>10</sup> 10-10  $10^{-6}$ 10-2 10<sup>2</sup> 10<sup>6</sup>  $10^{-4}$  $10^{-6}$ 10-8 100 500 200 300 400

ep: 78 layer4.0.shortcut.0 maxeig: 2.9e-04 mineig: 5.3e-10 con: 5.6e+05



ep: 78 layer4.1.conv1 maxeig: 2.4e-04 mineig: 1.3e-11 con: 1.9e+07  $10^{2}$ 10<sup>1</sup> 10<sup>0</sup> 10<sup>10</sup> 10-10 10<sup>2</sup>  $10^{-6}$ 10-2 10<sup>6</sup>  $10^{-4}$  $10^{-6}$  $10^{-8}$  $10^{-10}$ 100 400 500 200 300

ep: 78 layer4.1.conv2 maxeig: 1.3e-03 mineig: 1.0e-09 con: 1.2e+06  $10^{1}$ 10<sup>0</sup> 10<sup>10</sup> 10-10  $10^{-6}$ 10-2 10<sup>2</sup> 10<sup>6</sup>  $10^{-4}$ eigen value  $10^{-6}$ 10-8

200

300

400

500

100

