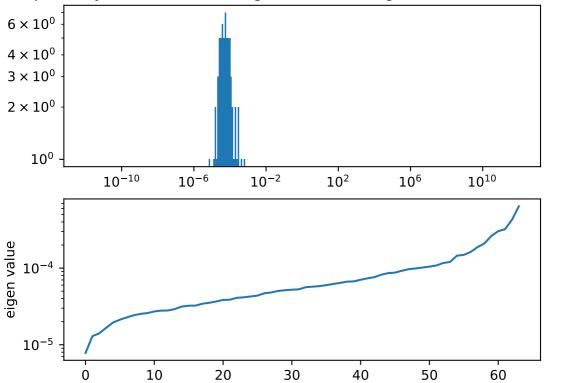
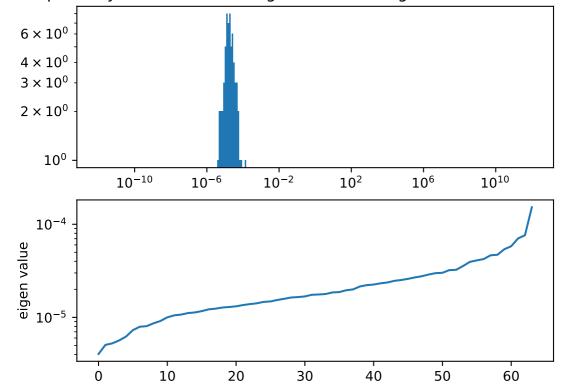


ep: 80 layer1.0.conv1 maxeig: 4.2e-03 mineig: 9.9e-06 con: 4.3e+02  $6 \times 10^{0}$  $4 \times 10^{0}$  $3 \times 10^{0}$  $2 \times 10^{0}$ 10<sup>0</sup> 1010 10-10  $10^{-6}$  $10^{-2}$ 10<sup>2</sup> 10<sup>6</sup> eigen value 10<sup>-3</sup> 10<sup>-5</sup> 50 60 10 20 30 40

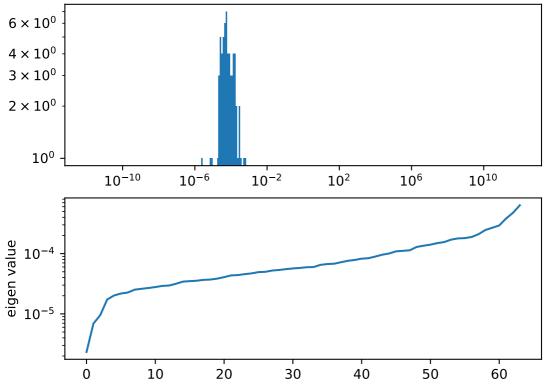
ep: 80 layer1.0.conv2 maxeig: 6.4e-04 mineig: 7.8e-06 con: 8.2e+01



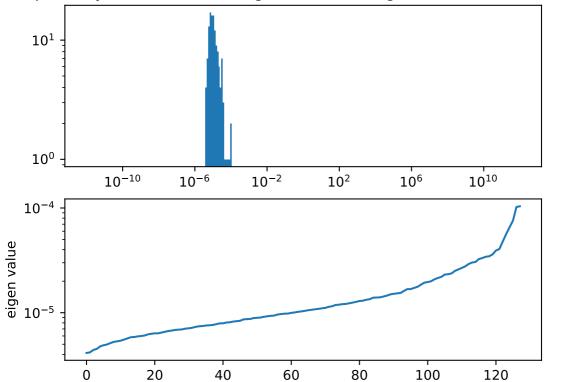
ep: 80 layer1.1.conv1 maxeig: 1.5e-04 mineig: 4.0e-06 con: 3.8e+01



ep: 80 layer1.1.conv2 maxeig: 6.3e-04 mineig: 2.3e-06 con: 2.7e+02



ep: 80 layer2.0.conv1 maxeig: 1.0e-04 mineig: 4.1e-06 con: 2.5e+01



ep: 80 layer2.0.conv2 maxeig: 1.5e-04 mineig: 1.3e-06 con: 1.2e+02  $10^{1}$ 10<sup>0</sup> 10<sup>10</sup> 10<sup>2</sup> 10-10 10-2 10<sup>6</sup>  $10^{-6}$  $10^{-4}$ eigen value  $10^{-6}$ 

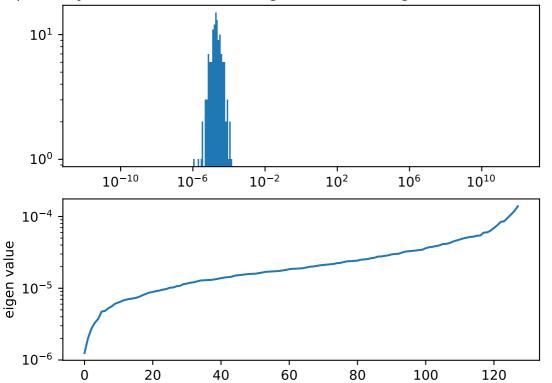
80

20

40

100

ep: 80 layer2.0.shortcut.0 maxeig: 1.4e-04 mineig: 1.3e-06 con: 1.1e+02



ep: 80 layer2.1.conv1 maxeig: 3.3e-05 mineig: 1.5e-06 con: 2.2e+01  $10^{1}$ 10<sup>0</sup> 10<sup>10</sup> 10<sup>2</sup> 10<sup>-10</sup>  $10^{-6}$ 10-2 10<sup>6</sup> eigen value

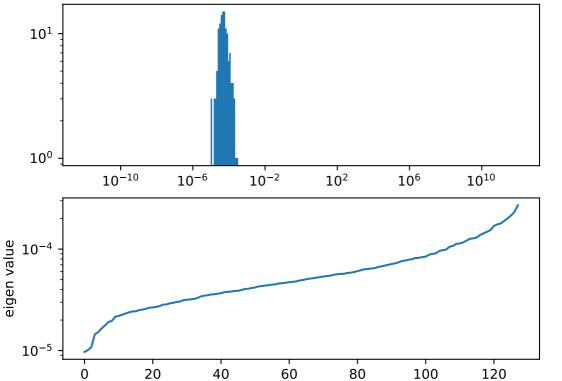
100

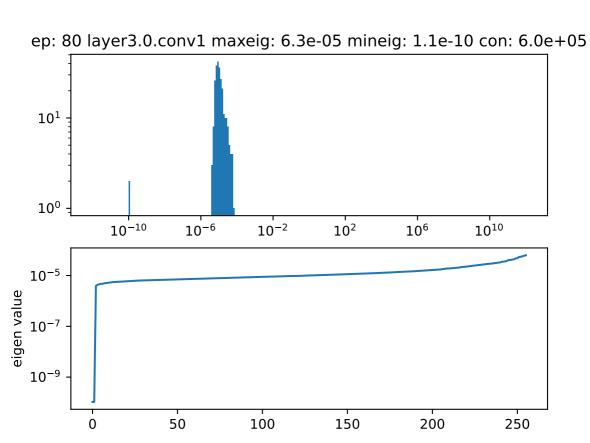
80

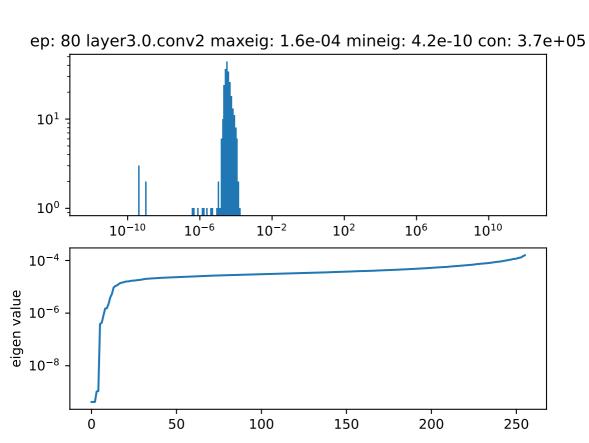
120

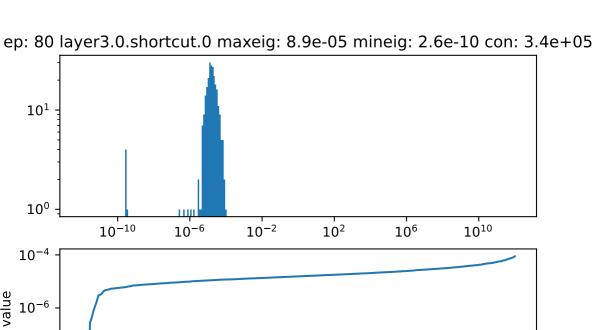
20

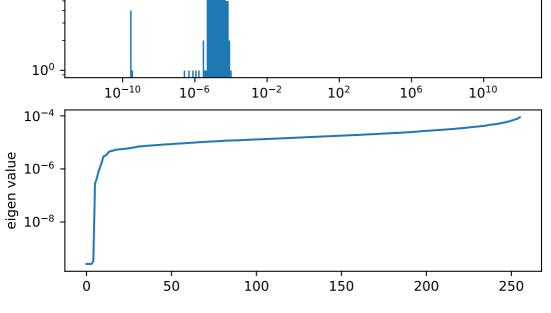
ep: 80 layer2.1.conv2 maxeig: 2.7e-04 mineig: 9.7e-06 con: 2.8e+01

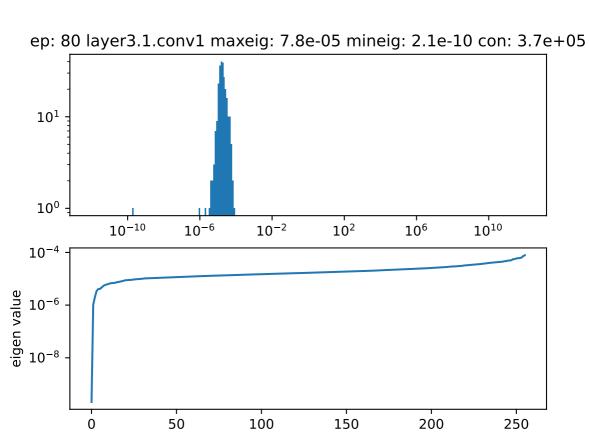












ep: 80 layer3.1.conv2 maxeig: 3.8e-04 mineig: 5.0e-06 con: 7.7e+01  $10^{1}$ 10<sup>0</sup> 10<sup>10</sup> 10-10 10<sup>2</sup> 10-2 10<sup>6</sup>  $10^{-6}$ eigen value  $10^{-4}$  $10^{-5}$ 

150

200

50

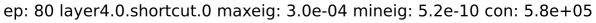
ep: 80 layer4.0.conv1 maxeig: 1.8e-04 mineig: 1.2e-06 con: 1.5e+02  $10^{1}$ 10<sup>0</sup> 10<sup>10</sup> 10<sup>2</sup> 10<sup>-10</sup> 10-2 10<sup>6</sup>  $10^{-6}$  $10^{-4}$ eigen value 10<sup>-5</sup>  $10^{-6}$ 100 500 200 300 400

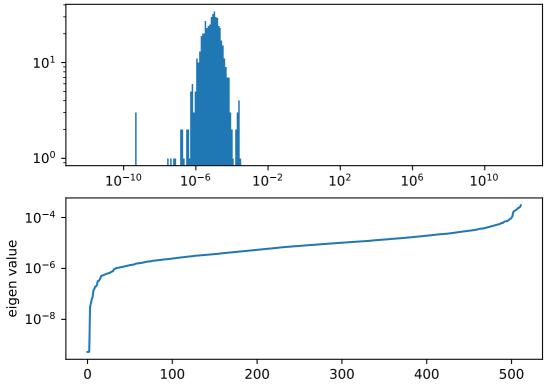
ep: 80 layer4.0.conv2 maxeig: 5.0e-04 mineig: 8.3e-10 con: 6.0e+05  $10^{1}$ 10<sup>0</sup> 10<sup>10</sup> 10-10  $10^{-6}$ 10-2 10<sup>2</sup> 10<sup>6</sup>  $10^{-4}$ eigen value  $10^{-6}$ 10<sup>-8</sup>

300

400

500





ep: 80 layer4.1.conv1 maxeig: 2.6e-04 mineig: 2.2e-11 con: 1.2e+07  $10^{2}$  $10^{1}$ 10<sup>0</sup> 10<sup>10</sup> 10<sup>2</sup> 10-10  $10^{-6}$ 10-2 10<sup>6</sup>  $10^{-4}$  $10^{-6}$ 10-8  $10^{-10}$ 100 400 500 200 300

eigen value

ep: 80 layer4.1.conv2 maxeig: 1.3e-03 mineig: 1.1e-09 con: 1.2e+06

