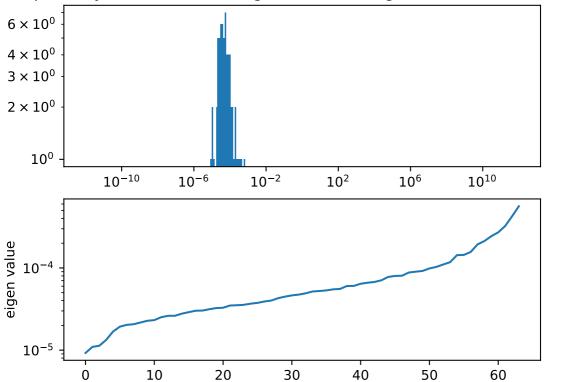
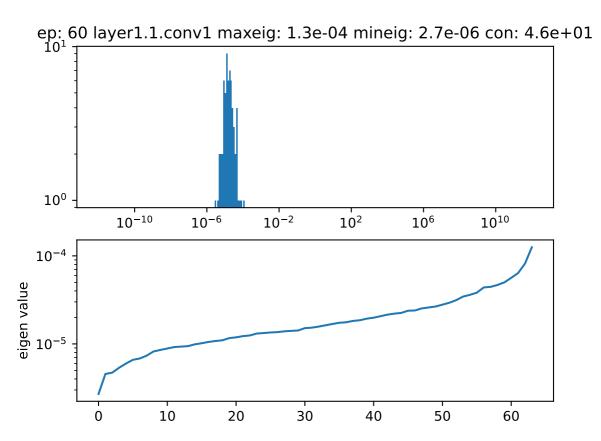
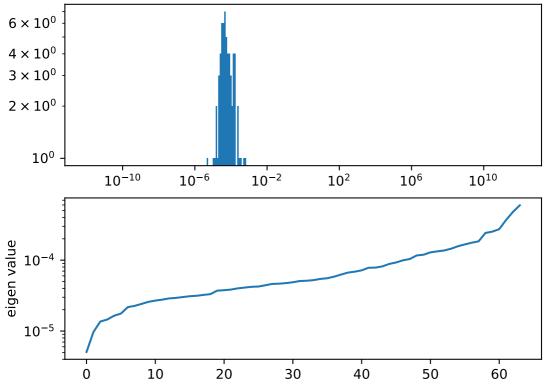


ep: 60 layer1.0.conv2 maxeig: 5.6e-04 mineig: 9.2e-06 con: 6.1e+01

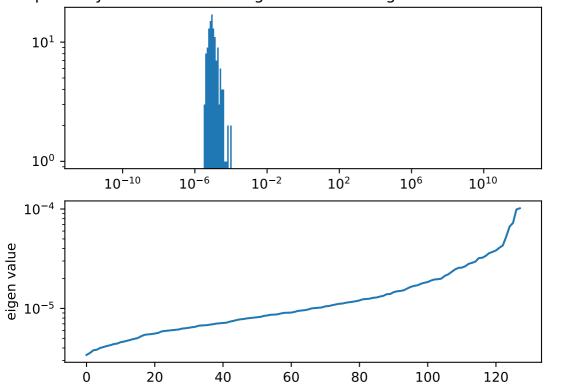




ep: 60 layer1.1.conv2 maxeig: 5.9e-04 mineig: 5.1e-06 con: 1.2e+02



ep: 60 layer2.0.conv1 maxeig: 1.0e-04 mineig: 3.4e-06 con: 3.0e+01



ep: 60 layer2.0.conv2 maxeig: 1.6e-04 mineig: 5.5e-07 con: 2.9e+02  $10^{1}$ 10<sup>0</sup> 10 10 10<sup>2</sup> 10-10  $10^{-6}$ 10-2 10<sup>6</sup>  $10^{-4}$ 10-5  $10^{-6}$ 

60

80

100

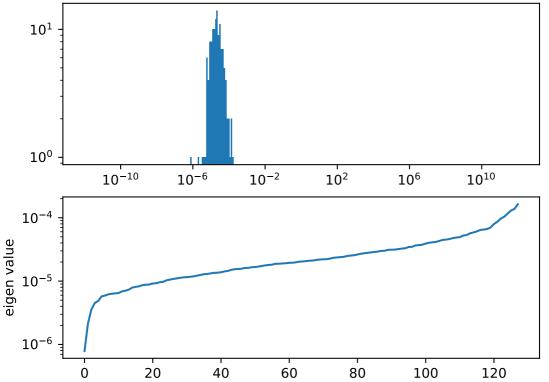
120

eigen value

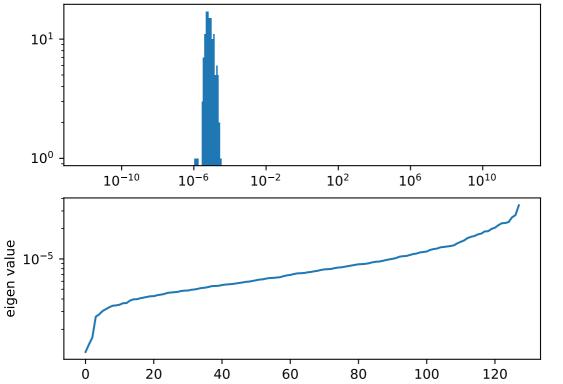
20

40

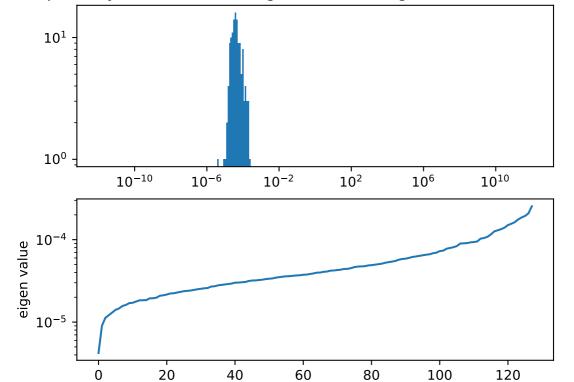
ep: 60 layer2.0.shortcut.0 maxeig: 1.6e-04 mineig: 7.9e-07 con: 2.1e+02



ep: 60 layer2.1.conv1 maxeig: 3.4e-05 mineig: 1.2e-06 con: 2.9e+01



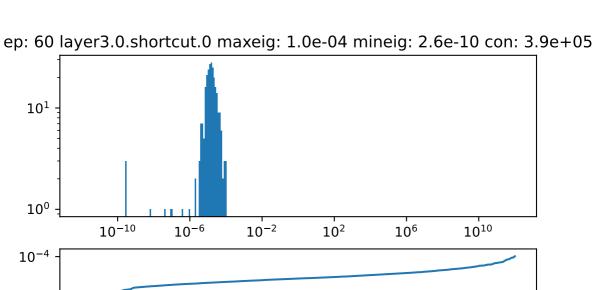
ep: 60 layer2.1.conv2 maxeig: 2.5e-04 mineig: 4.2e-06 con: 6.0e+01

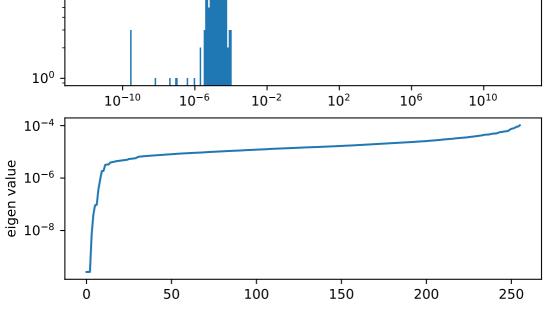


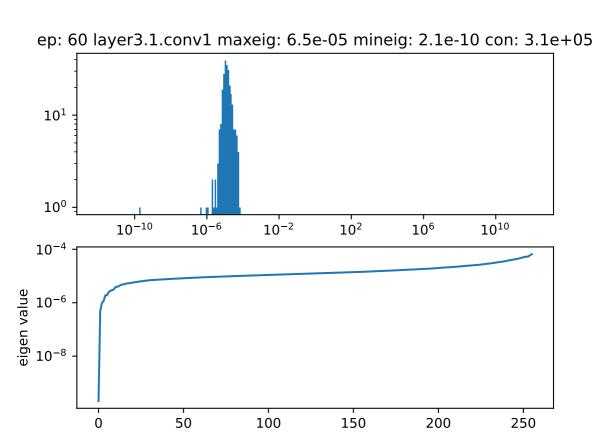
ep: 60 layer3.0.conv1 maxeig: 6.2e-05 mineig: 1.1e-10 con: 5.9e+05 10<sup>1</sup> 10<sup>0</sup> 1010 10-10 10-2 10<sup>2</sup> 10<sup>6</sup>  $10^{-6}$ 10<sup>-5</sup>  $10^{-7}$  $10^{-9}$ 250 50 100 150 200

eigen value

ep: 60 layer3.0.conv2 maxeig: 1.5e-04 mineig: 4.2e-10 con: 3.7e+05  $10^{1}$ 10<sup>0</sup> 1010  $10^{-10}$ 10-2 10<sup>2</sup> 10<sup>6</sup>  $10^{-6}$  $10^{-4}$ eigen value 10<sup>-6</sup> 250 50 100 150 200







ep: 60 layer3.1.conv2 maxeig: 3.2e-04 mineig: 2.6e-06 con: 1.2e+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 50 100 150 200

ep: 60 layer4.0.conv1 maxeig: 1.6e-04 mineig: 7.1e-07 con: 2.3e+02 10<sup>1</sup> 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: 60 layer4.0.conv2 maxeig: 4.3e-04 mineig: 1.1e-08 con: 4.1e+04 10<sup>1</sup> 10<sup>0</sup> 10 10 10-10  $10^{-6}$ 10-2 10<sup>2</sup> 10<sup>6</sup>  $10^{-4}$  $10^{-5}$  $10^{-6}$  $10^{-7}$ 10-8

200

300

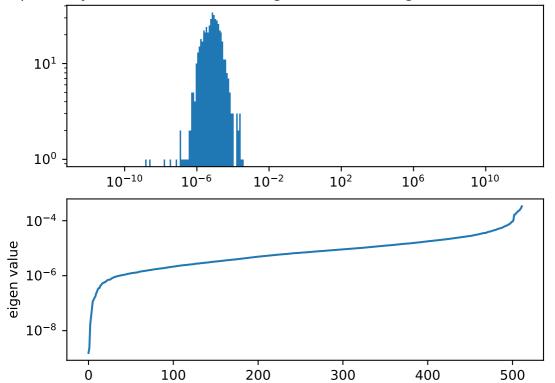
400

500

100

eigen value

ep: 60 layer4.0.shortcut.0 maxeig: 3.4e-04 mineig: 1.5e-09 con: 2.2e+05



ep: 60 layer4.1.conv1 maxeig: 1.8e-04 mineig: 8.4e-11 con: 2.2e+06  $10^{1}$ 10<sup>0</sup> 10<sup>10</sup> 10-10 10<sup>2</sup>  $10^{-6}$ 10-2 10<sup>6</sup>  $10^{-5}$  $10^{-7}$  $10^{-9}$ 100 500 200 300 400

eigen value

ep: 60 layer4.1.conv2 maxeig: 1.1e-03 mineig: 3.1e-09 con: 3.7e+05

