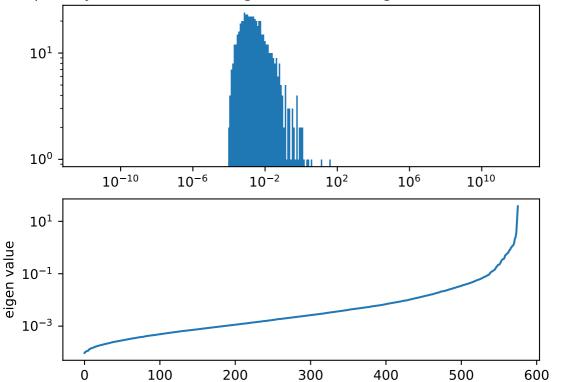
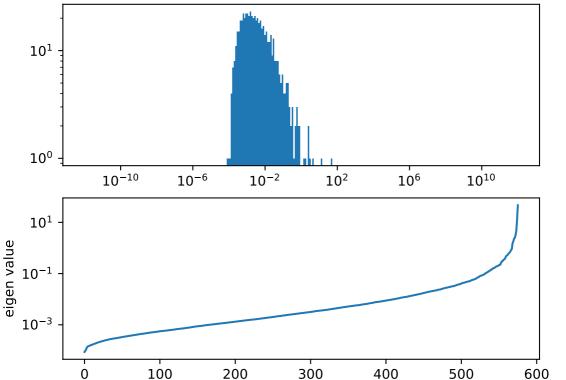


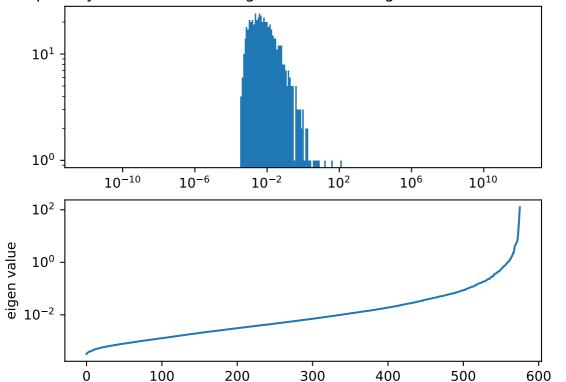
ep: 1 layer1.0.conv1 maxeig: 3.8e+01 mineig: 9.5e-05 con: 4.0e+05



ep: 1 layer1.0.conv2 maxeig: 4.6e+01 mineig: 8.7e-05 con: 5.3e+05



ep: 1 layer1.1.conv1 maxeig: 1.2e+02 mineig: 3.2e-04 con: 3.8e+05



ep: 1 layer1.1.conv2 maxeig: 4.3e+01 mineig: 1.4e-04 con: 3.1e+05 10<sup>1</sup> 10<sup>0</sup> 10 10 10-10 10-6 10<sup>6</sup>  $10^{-2}$ 10<sup>2</sup>  $10^1$  $10^{-1}$  $10^{-3}$ 

300

400

500

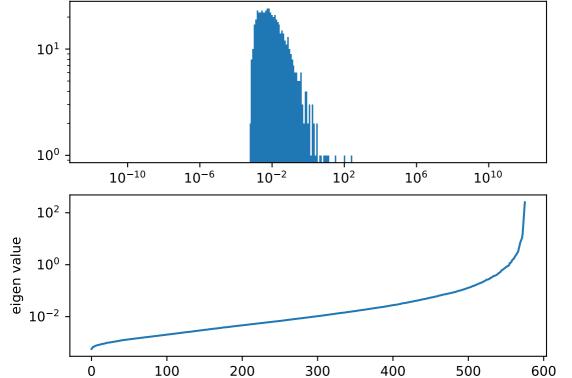
600

eigen value

100

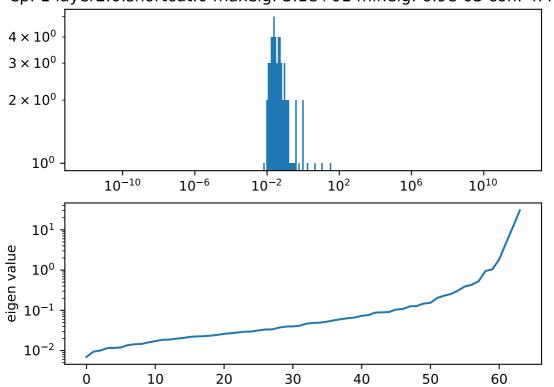
200

ep: 1 layer2.0.conv1 maxeig: 2.5e+02 mineig: 5.7e-04 con: 4.4e+05



ep: 1 layer2.0.conv2 maxeig: 8.0e+01 mineig: 2.3e-04 con: 3.5e+05  $10^{1}$ 10<sup>0</sup> 10<sup>10</sup> 10-10 10-6 10-2 10<sup>6</sup> 10<sup>2</sup> 10<sup>2</sup> 200 400 600 800 1000 1200

ep: 1 layer2.0.shortcut.0 maxeig: 3.1e+01 mineig: 6.9e-03 con: 4.4e+03

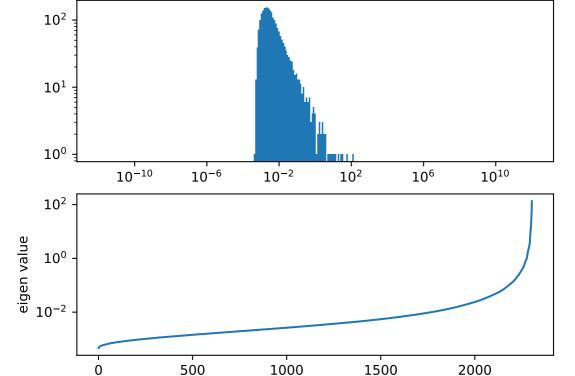


ep: 1 layer2.1.conv1 maxeig: 2.5e+02 mineig: 9.1e-04 con: 2.8e+05  $10^{1}$ 10<sup>0</sup> 10<sup>10</sup> 10-10 10<sup>6</sup>  $10^{-6}$  $10^{-2}$ 10<sup>2</sup>  $10^{2}$ eigen value 10<sup>0</sup>  $10^{-2}$ 200 400 600 800 1000 1200

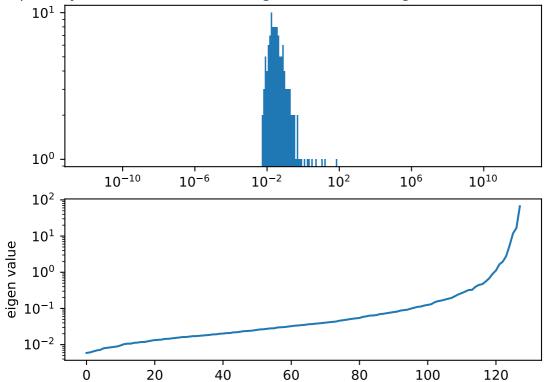
ep: 1 layer2.1.conv2 maxeig: 1.0e+02 mineig: 4.1e-04 con: 2.5e+05  $10^{1}$ 10<sup>0</sup> 1010 10-10  $10^{-6}$  $10^{-2}$ 10<sup>2</sup> 10<sup>6</sup>  $10^{2}$ eiden value 10° al no 10° 200 400 600 800 1000 1200

ep: 1 layer3.0.conv1 maxeig: 5.2e+02 mineig: 1.4e-03 con: 3.6e+05  $10^{1}$ 10<sup>0</sup> 10 10 10-10  $10^{-6}$  $10^{-2}$ 10<sup>2</sup> 10<sup>6</sup>  $10^{2}$ eigen value 10<sup>0</sup>  $10^{-2}$ 200 400 600 800 1000 1200

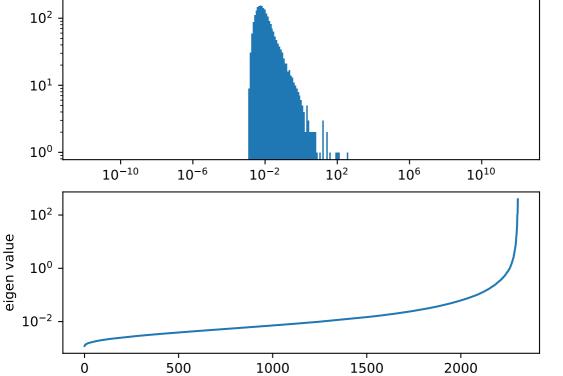
ep: 1 layer3.0.conv2 maxeig: 1.3e+02 mineig: 4.7e-04 con: 2.9e+05  $10^{2}$ 



ep: 1 layer3.0.shortcut.0 maxeig: 6.7e+01 mineig: 5.9e-03 con: 1.1e+04



ep: 1 layer3.1.conv1 maxeig: 3.9e+02 mineig: 1.2e-03 con: 3.2e+05



ep: 1 layer3.1.conv2 maxeig: 1.3e+02 mineig: 5.6e-04 con: 2.3e+05  $10^{2}$  $10^{1}$ 10<sup>0</sup> 10 10 10-10  $10^{-6}$  $10^{-2}$ 10<sup>2</sup> 10<sup>6</sup> 10<sup>2</sup> eigen value 10<sup>-2</sup>

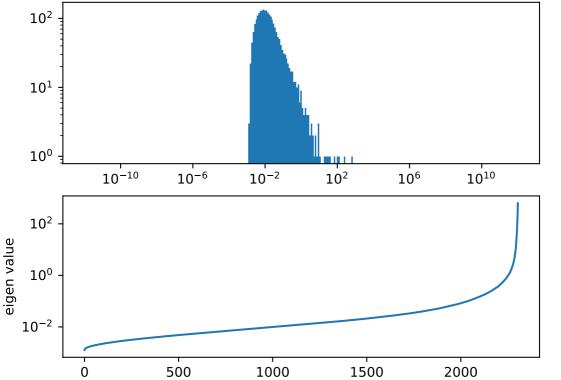
1000

1500

2000

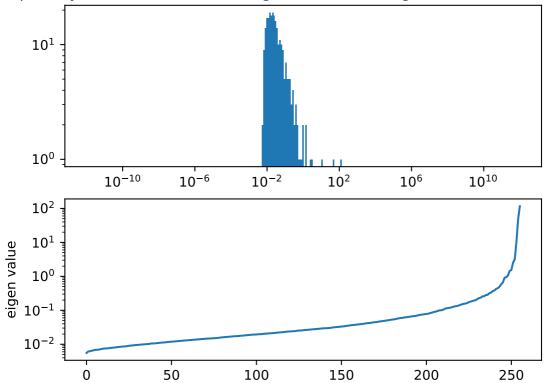
500

ep: 1 layer4.0.conv1 maxeig: 6.3e+02 mineig: 1.3e-03 con: 4.9e+05

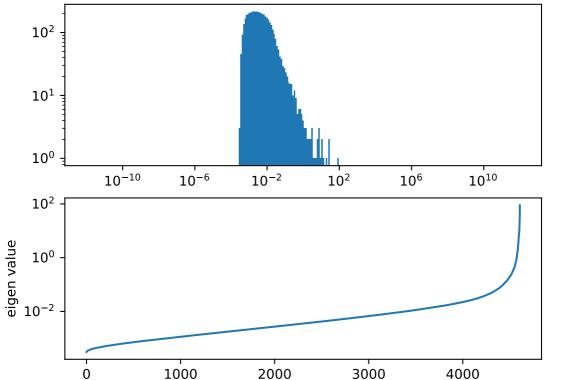


ep: 1 layer4.0.conv2 maxeig: 2.1e+02 mineig: 1.1e-04 con: 1.9e+06  $10^{2}$  $10^{1}$ 10<sup>0</sup> 10 10 10-10 10<sup>6</sup>  $10^{-6}$  $10^{-2}$ 10<sup>2</sup>  $10^1$ eigen value  $10^{-1}$ 10<sup>-3</sup> 4000 1000 2000 3000

ep: 1 layer4.0.shortcut.0 maxeig: 1.2e+02 mineig: 5.6e-03 con: 2.1e+04



ep: 1 layer4.1.conv1 maxeig: 8.9e+01 mineig: 3.1e-04 con: 2.9e+05



ep: 1 layer4.1.conv2 maxeig: 3.2e+02 mineig: 9.9e-05 con: 3.2e+06 10<sup>2</sup>  $10^{1}$ 10<sup>0</sup> 10 10 10<sup>-10</sup>  $10^{-6}$  $10^{-2}$ 10<sup>2</sup> 10<sup>6</sup>  $10^{1}$ eigen value  $10^{-1}$ 10<sup>-3</sup> 4000

2000

3000

1000

