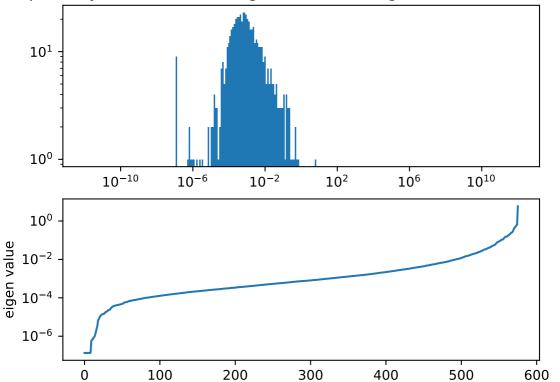
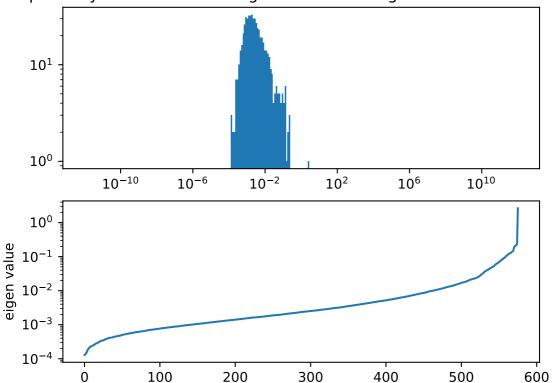
ep: 91 conv1 maxeig: 5.8e+01 mineig: 3.8e-03 con: 1.5e+04  $3 \times 10^{0}$  $2 \times 10^{0}$ 10<sup>0</sup> 10<sup>10</sup> 10-10 10-6 10-2 10<sup>2</sup> 10<sup>6</sup> 10<sup>1</sup> eigen value 10<sup>-1</sup>  $10^{-2}$ 10 15 25 20

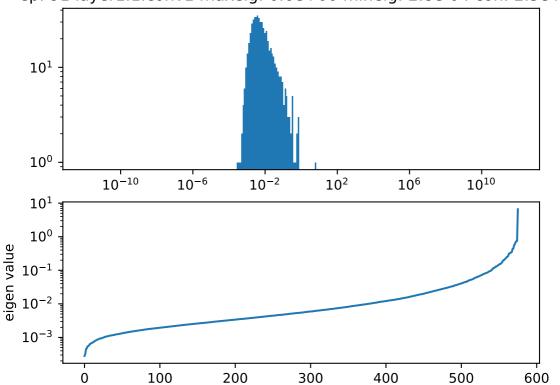
ep: 91 layer1.0.conv1 maxeig: 5.8e+00 mineig: 1.3e-07 con: 4.3e+07



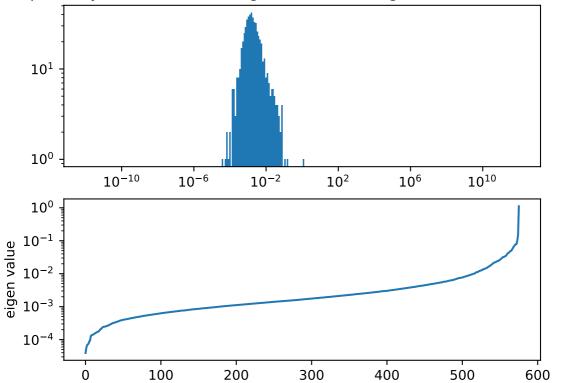
ep: 91 layer1.0.conv2 maxeig: 2.6e+00 mineig: 1.3e-04 con: 2.0e+04



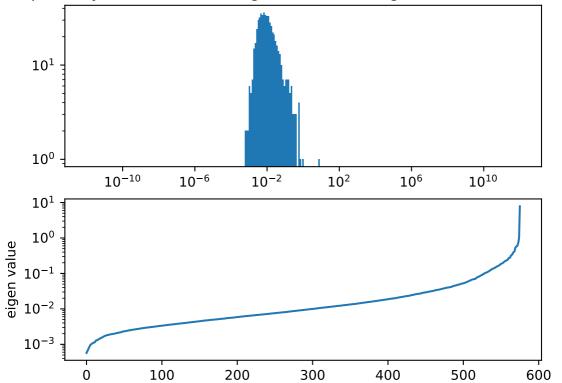
ep: 91 layer1.1.conv1 maxeig: 6.6e+00 mineig: 2.8e-04 con: 2.3e+04



ep: 91 layer1.1.conv2 maxeig: 1.1e+00 mineig: 3.9e-05 con: 2.8e+04

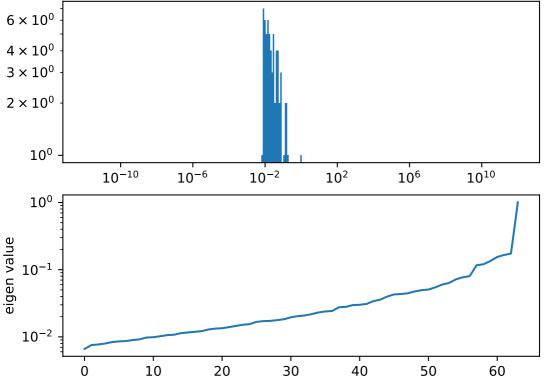


ep: 91 layer2.0.conv1 maxeig: 7.8e+00 mineig: 5.7e-04 con: 1.4e+04



ep: 91 layer2.0.conv2 maxeig: 2.5e+00 mineig: 4.9e-04 con: 5.0e+03  $10^{2}$  $10^{1}$ 10<sup>0</sup> 1010 10-10  $10^{-2}$ 10<sup>6</sup>  $10^{-6}$ 10<sup>2</sup> 10<sup>0</sup> e ide on solution of the solut 10<sup>-3</sup> 200 400 600 800 1000 1200

ep: 91 layer2.0.shortcut.0 maxeig: 1.0e+00 mineig: 6.6e-03 con: 1.5e+02



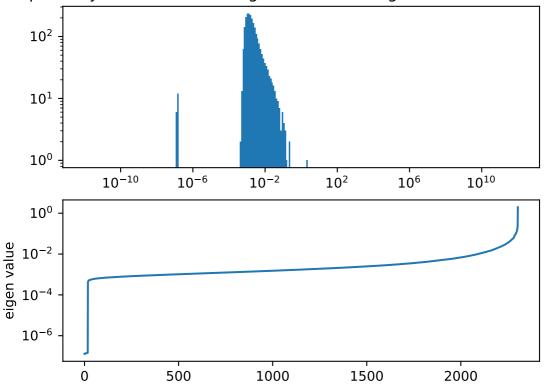
ep: 91 layer2.1.conv1 maxeig: 6.4e+00 mineig: 7.4e-05 con: 8.7e+04  $10^{2}$  $10^{1}$  $10^{0}$ 1010 10-10 10-2 10<sup>6</sup>  $10^{-6}$ 10<sup>2</sup>  $10^{1}$ eigen value  $10^{-1}$ 10<sup>-3</sup> 200 400 600 800 1000 1200

ep: 91 layer2.1.conv2 maxeig: 3.6e-01 mineig: 9.0e-05 con: 4.0e+03  $10^{2}$  $10^{1}$ 10<sup>0</sup> 1010 10<sup>-10</sup> 10<sup>2</sup> 10<sup>6</sup>  $10^{-6}$  $10^{-2}$  $10^{-1}$ eigen value 10<sup>-2</sup> 10<sup>-3</sup> 10-2  $10^{-4}$ 200 400 600 800 1000 1200

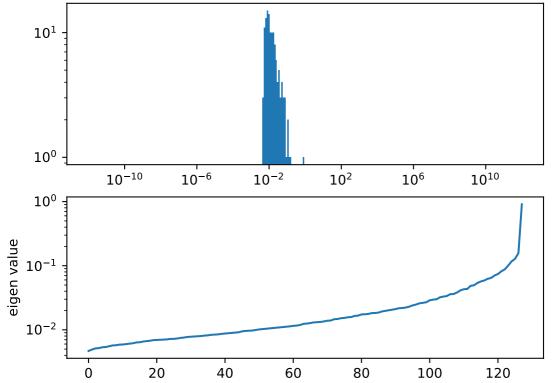
ep: 91 layer3.0.conv1 maxeig: 6.7e+00 mineig: 9.1e-04 con: 7.4e+03  $10^{2}$  $10^{1}$  $10^{0}$ 1010 10-10 10<sup>6</sup>  $10^{-6}$  $10^{-2}$ 10<sup>2</sup>  $10^{1}$ 10<sup>0</sup> eigen value 10<sup>-1</sup> 10<sup>-2</sup> 10<sup>-3</sup> 200 400 600 800 1000

1200

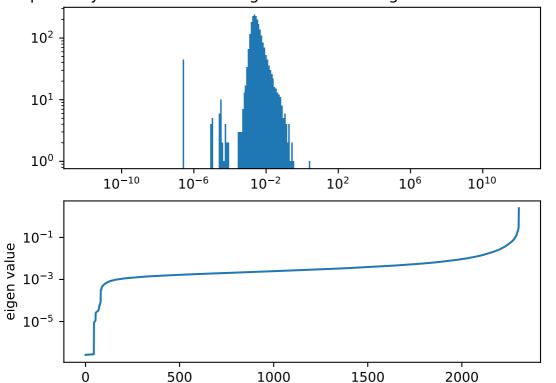
ep: 91 layer3.0.conv2 maxeig: 2.0e+00 mineig: 1.3e-07 con: 1.5e+07



ep: 91 layer3.0.shortcut.0 maxeig: 9.1e-01 mineig: 4.7e-03 con: 1.9e+02



ep: 91 layer3.1.conv1 maxeig: 2.4e+00 mineig: 2.6e-07 con: 9.4e+06



ep: 91 layer3.1.conv2 maxeig: 4.0e-01 mineig: 6.0e-08 con: 6.7e+06  $10^{2}$  $10^{1}$ 10<sup>0</sup>  $10^{10}$  $10^{-10}$  $10^{-6}$ 10<sup>2</sup> 10<sup>6</sup>  $10^{-2}$ eigen value  $10^{-6}$ 

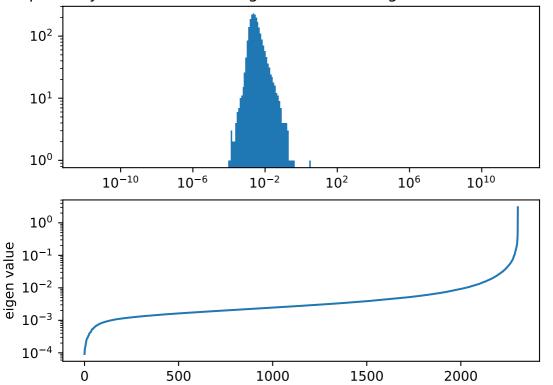
1000

1500

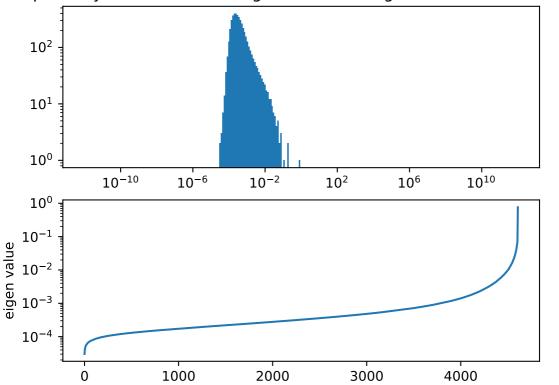
2000

500

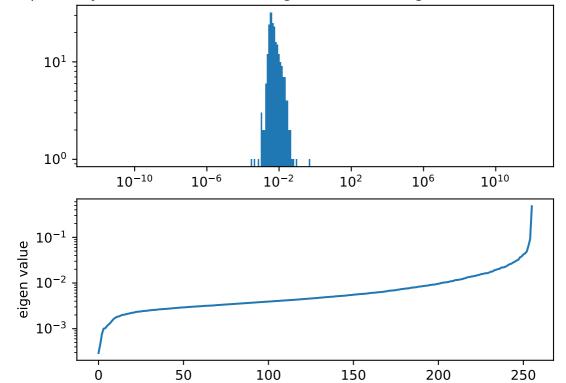
ep: 91 layer4.0.conv1 maxeig: 3.0e+00 mineig: 9.2e-05 con: 3.3e+04



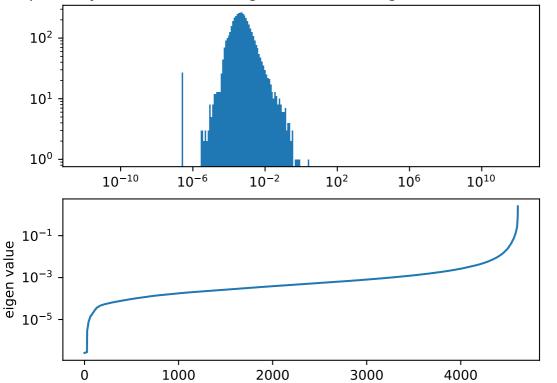
ep: 91 layer4.0.conv2 maxeig: 7.6e-01 mineig: 3.0e-05 con: 2.5e+04



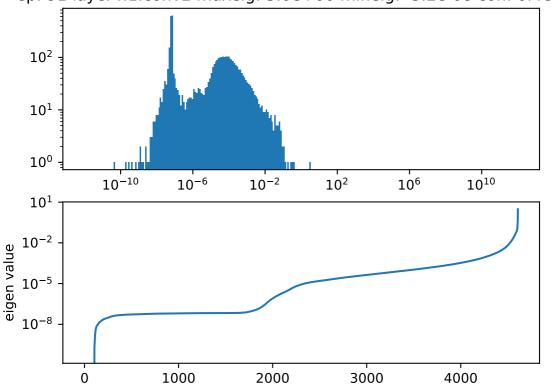
ep: 91 <u>layer4.0.shortcut.0 maxeig: 4.8e-01 mineig: 2.9e-04 con: 1.6e+03</u>



ep: 91 layer4.1.conv1 maxeig: 2.5e+00 mineig: 2.5e-07 con: 9.9e+06



ep: 91 layer4.1.conv2 maxeig: 3.0e+00 mineig: -3.2e-08 con: 6.4e+10



ep: 91 linear maxeig: 1.5e+00 mineig: 4.2e-09 con: 3.6e+08  $10^{1}$ 10<sup>0</sup> 10<sup>10</sup>  $10^{-10}$  $10^{-6}$ 10<sup>2</sup> 10<sup>6</sup>  $10^{-2}$  $10^{-1}$ eigen value 10<sup>-3</sup>  $10^{-5}$  $10^{-7}$ 100 400 500 200 300