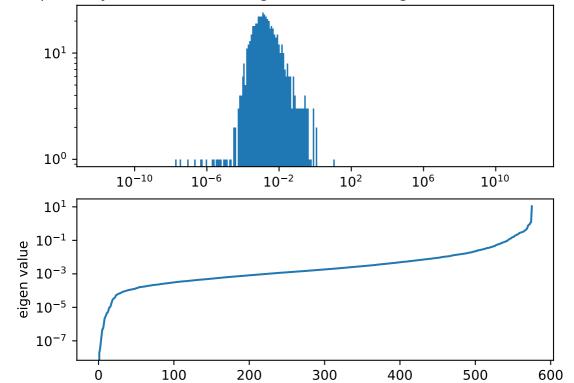
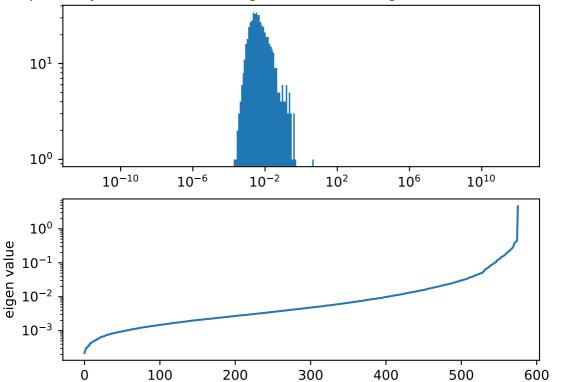
ep: 53 conv1 maxeig: 5.8e+01 mineig: 3.9e-03 con: 1.5e+04  $3 \times 10^{0}$  $2 \times 10^{0}$ 10<sup>0</sup> 10<sup>10</sup> 10-10 10-6 10-2 10<sup>2</sup> 10<sup>6</sup> 10<sup>1</sup> eigen value 10<sup>-1</sup>  $10^{-2}$ 10 15 25 20

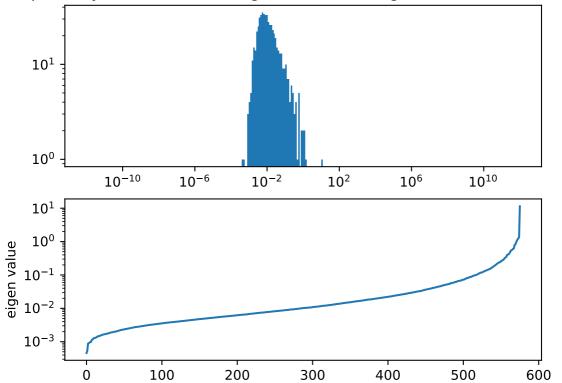
ep: 53 layer1.0.conv1 maxeig: 1.1e+01 mineig: -1.2e-08 con: 9.0e+08



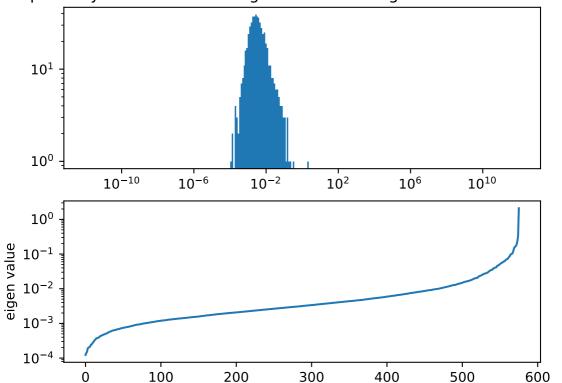
ep: 53 layer1.0.conv2 maxeig: 4.6e+00 mineig: 2.2e-04 con: 2.1e+04



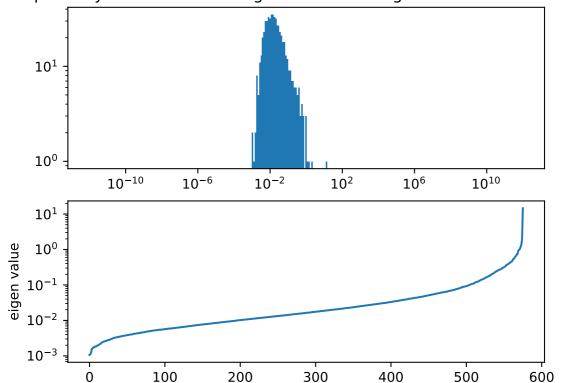
ep: 53 layer1.1.conv1 maxeig: 1.1e+01 mineig: 4.6e-04 con: 2.5e+04



ep: 53 layer1.1.conv2 maxeig: 2.1e+00 mineig: 1.2e-04 con: 1.7e+04

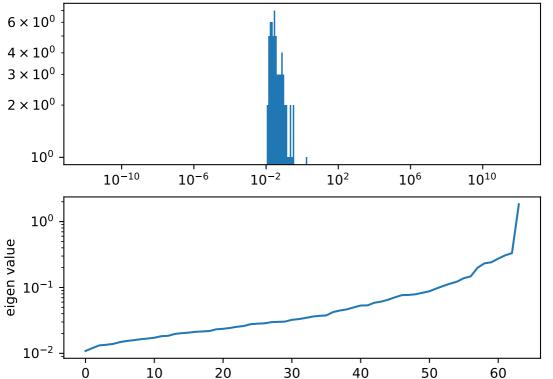


ep: 53 layer2.0.conv1 maxeig: 1.5e+01 mineig: 1.1e-03 con: 1.4e+04

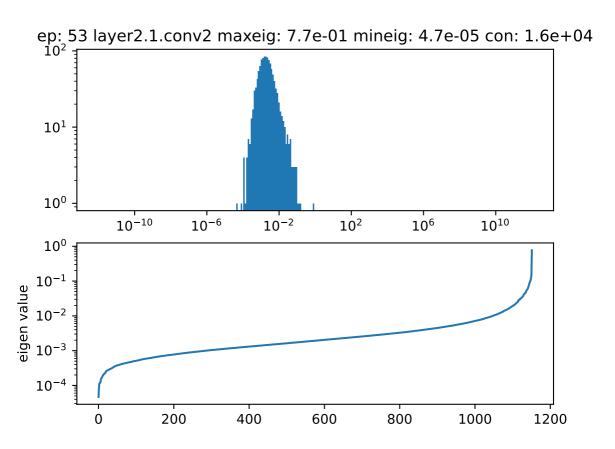


ep: 53 layer2.0.conv2 maxeig: 4.3e+00 mineig: 7.9e-04 con: 5.4e+03  $10^{2}$  $10^{1}$ 10<sup>0</sup> 1010 10-10  $10^{-2}$ 10<sup>6</sup>  $10^{-6}$ 10<sup>2</sup> 10° eigen value 10<sup>-1</sup> ightarrow 10<sup>-2</sup> 10<sup>-3</sup> 200 400 600 800 1000 1200

ep: 53 layer2.0.shortcut.0 maxeig: 1.8e+00 mineig: 1.1e-02 con: 1.7e+02

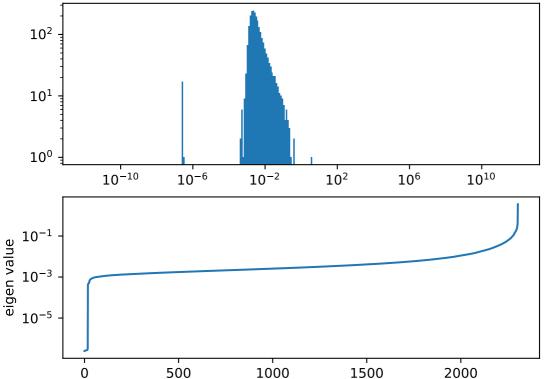


ep: 53 layer2.1.conv1 maxeig: 1.1e+01 mineig: 2.3e-04 con: 5.0e+04  $10^{2}$  $10^{1}$ 10<sup>0</sup> 1010 10-10 10-2  $10^{-6}$ 10<sup>2</sup> 10<sup>6</sup>  $10^{1}$ 10<sup>0</sup> eigen value  $10^{-1}$  $10^{-2}$ 10<sup>-3</sup> 200 400 600 800 1000 1200

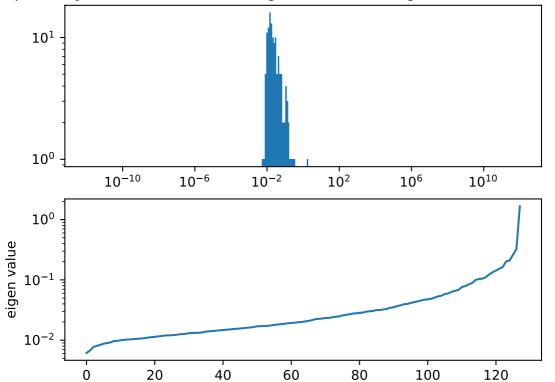


ep: 53 layer3.0.conv1 maxeig: 1.2e+01 mineig: 9.8e-04 con: 1.3e+04  $10^{2}$  $10^{1}$ 10<sup>0</sup> 1010 10-10 10<sup>6</sup>  $10^{-6}$  $10^{-2}$ 10<sup>2</sup>  $10^1$ eigen value 10 10<sup>-2</sup> 10<sup>-3</sup> 200 400 600 800 1000 1200

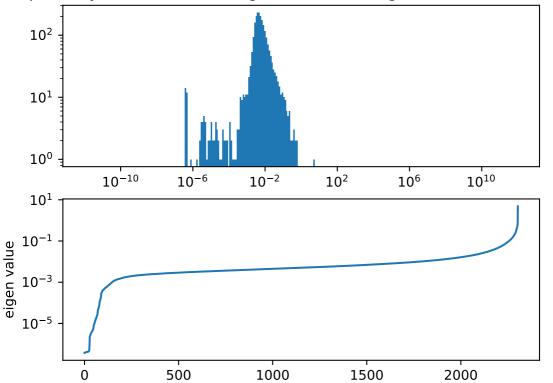
ep: 53 layer3.0.conv2 maxeig: 3.5e+00 mineig: 2.5e-07 con: 1.4e+07



ep: 53 layer3.0.shortcut.0 maxeig: 1.7e+00 mineig: 6.1e-03 con: 2.7e+02



ep: 53 layer3.1.conv1 maxeig: 4.8e+00 mineig: 3.7e-07 con: 1.3e+07



ep: 53 layer3.1.conv2 maxeig: 9.1e-01 mineig: 1.2e-07 con: 7.7e+06  $10^{2}$ 10<sup>1</sup> 10<sup>0</sup> 1010 10-10  $10^{-6}$ 10-2 10<sup>2</sup> 10<sup>6</sup> 10<sup>0</sup>  $10^{-2}$ eigen value  $10^{-4}$  $10^{-6}$ 

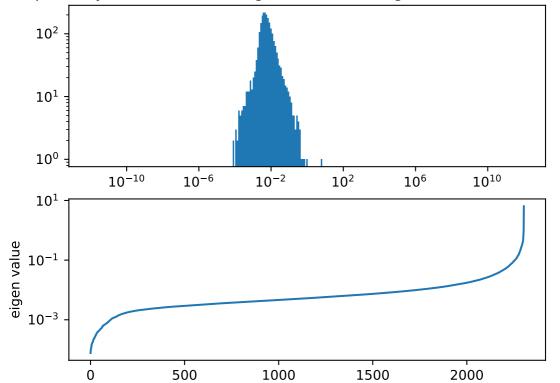
1000

1500

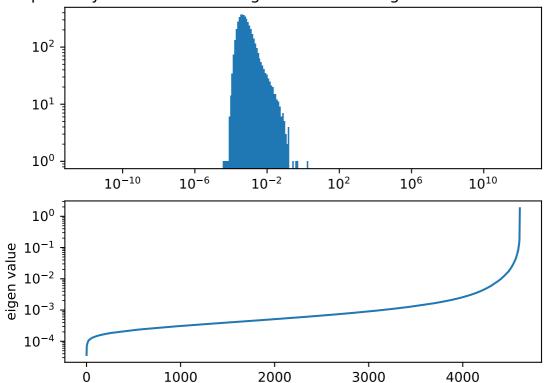
2000

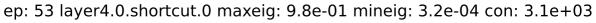
500

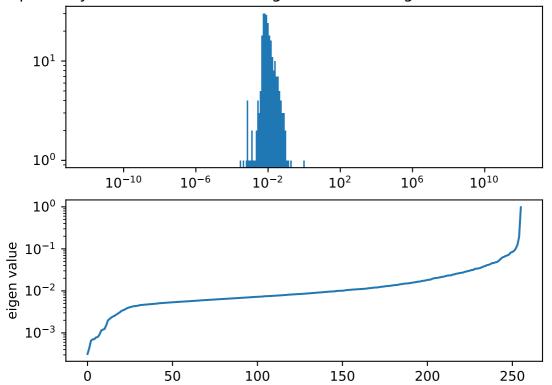
ep: 53 layer4.0.conv1 maxeig: 6.4e+00 mineig: 7.7e-05 con: 8.3e+04



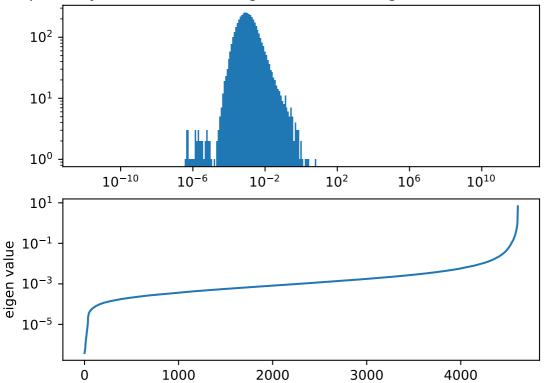
ep: 53 layer4.0.conv2 maxeig: 1.8e+00 mineig: 3.7e-05 con: 4.9e+04



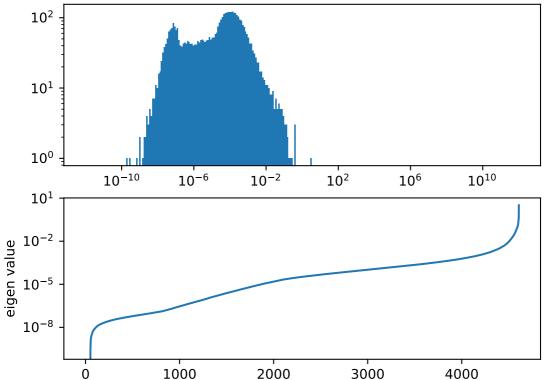




ep: 53 layer4.1.conv1 maxeig: 6.7e+00 mineig: 3.9e-07 con: 1.7e+07



ep: 53 layer4.1.conv2 maxeig: 3.2e+00 mineig: -2.1e-08 con: 2.5e+10



ep: 53 linear maxeig: 1.6e+00 mineig: 9.2e-07 con: 1.8e+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>  $10^{-1}$ eigen value 10-3 10<sup>-5</sup> 100 400 500 200 300