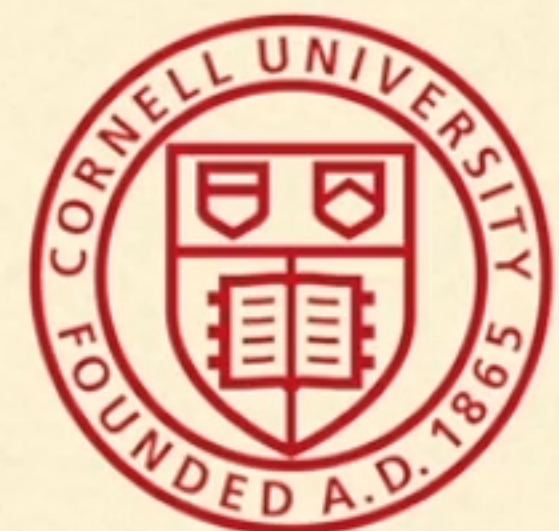


DEEP NETWORKS WITH STOCHASTIC DEPTH

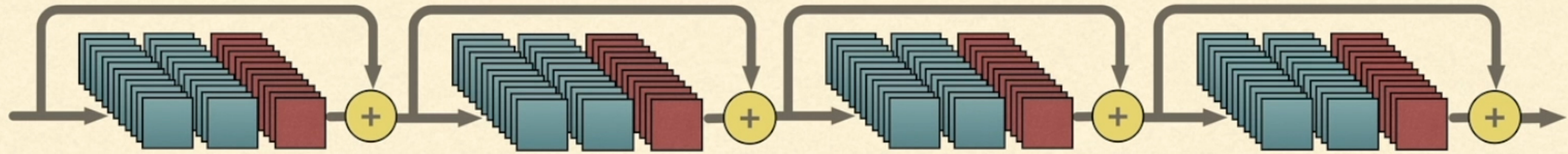
Gao Huang*, **Yu Sun***, Zhuang Liu, Daniel Sedra, Kilian Weinberger

* Authors contribute equally

Cornell University

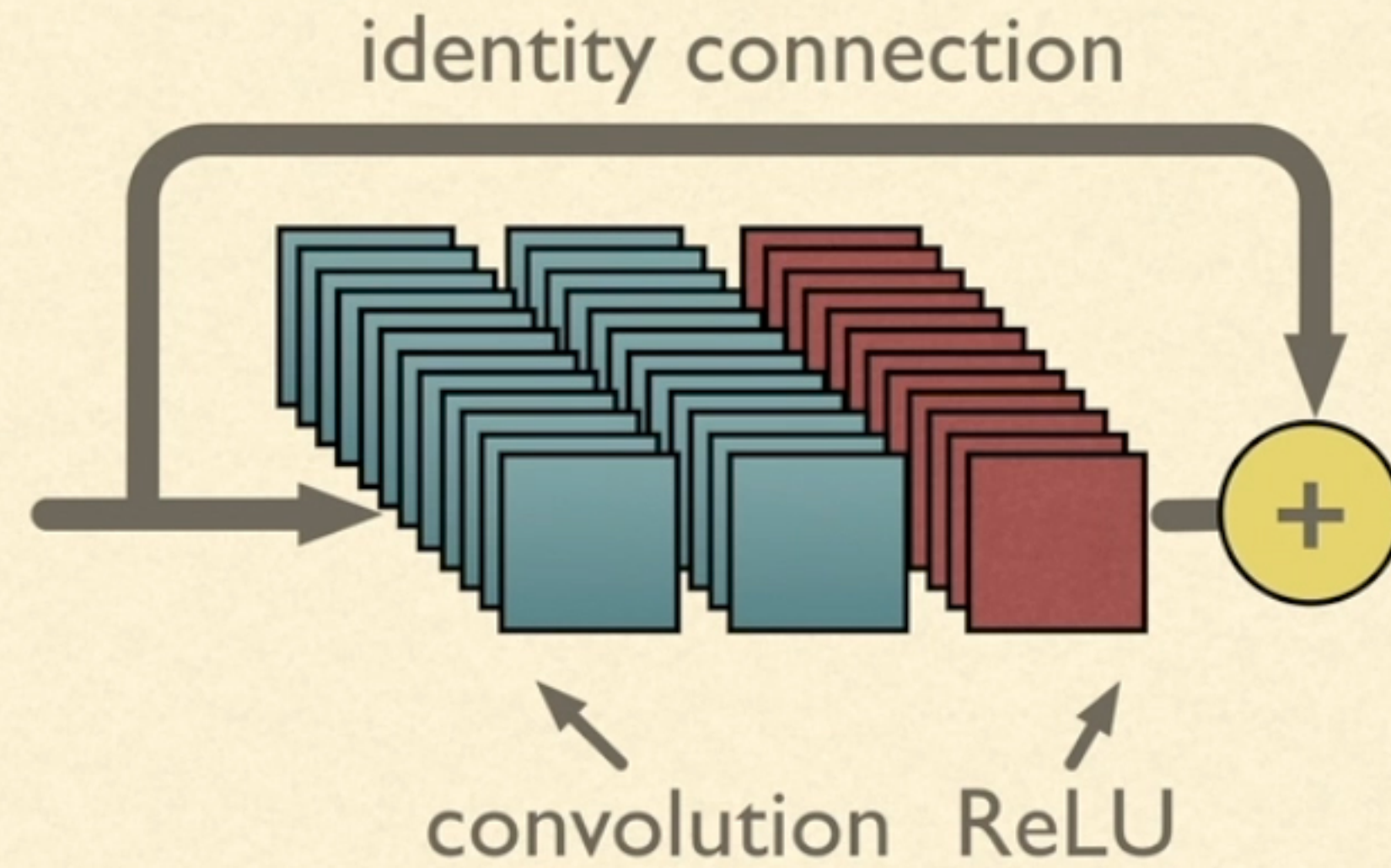


RESIDUAL NETWORKS*



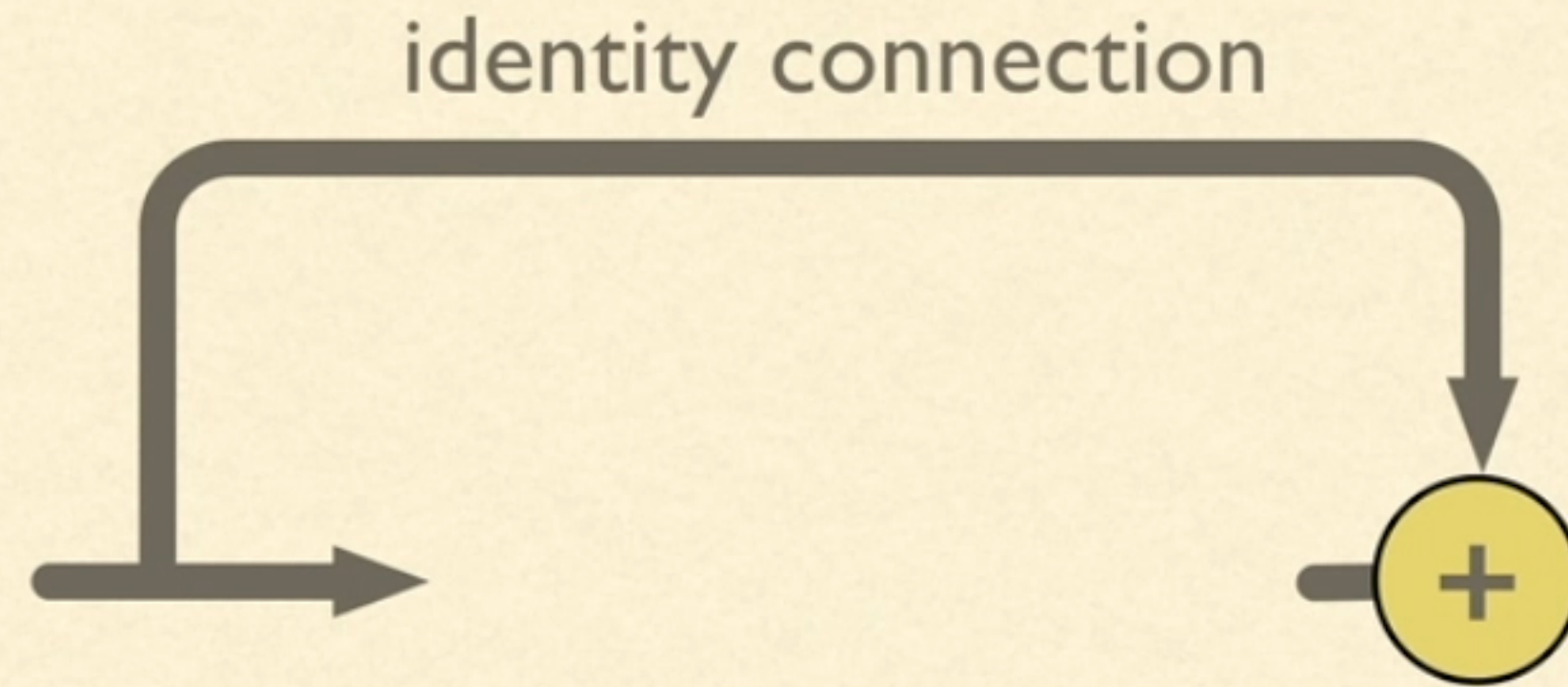
*Deep Residual Learning for Image Recognition, CVPR'16
by Kaiming He, Xiangyu Zhang, Shaoqing Ren, Jian Sun

RESIDUAL NETWORKS*



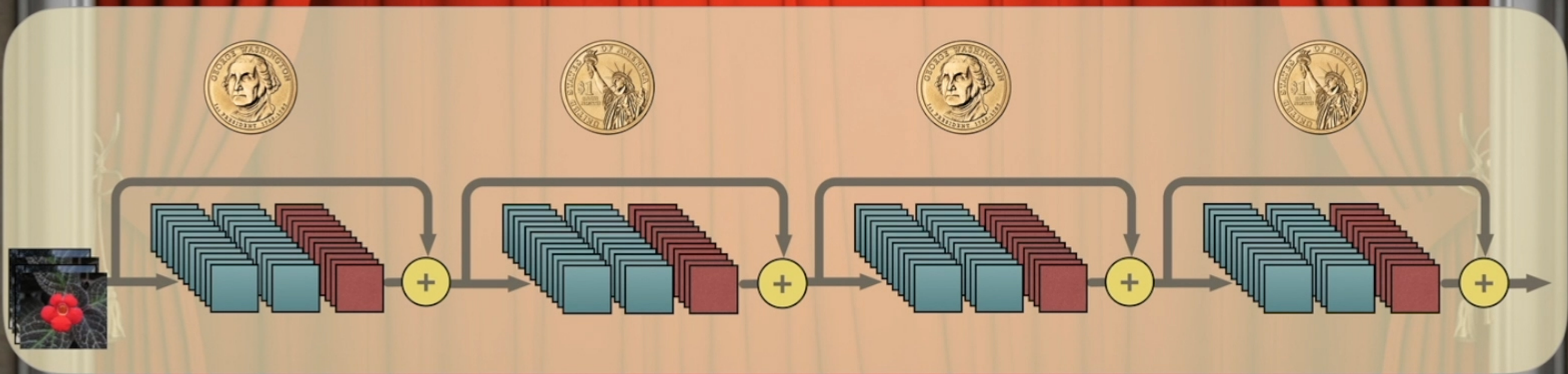
*Deep Residual Learning for Image Recognition, CVPR'16
by Kaiming He, Xiangyu Zhang, Shaoqing Ren, Jian Sun

RESIDUAL NETWORKS*

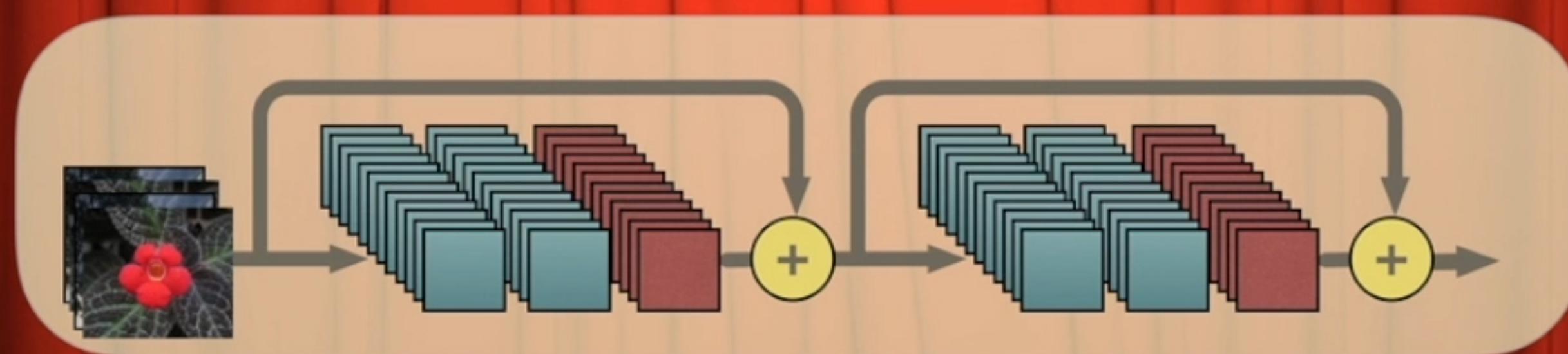


*Deep Residual Learning for Image Recognition, CVPR'16
by Kaiming He, Xiangyu Zhang, Shaoqing Ren, Jian Sun

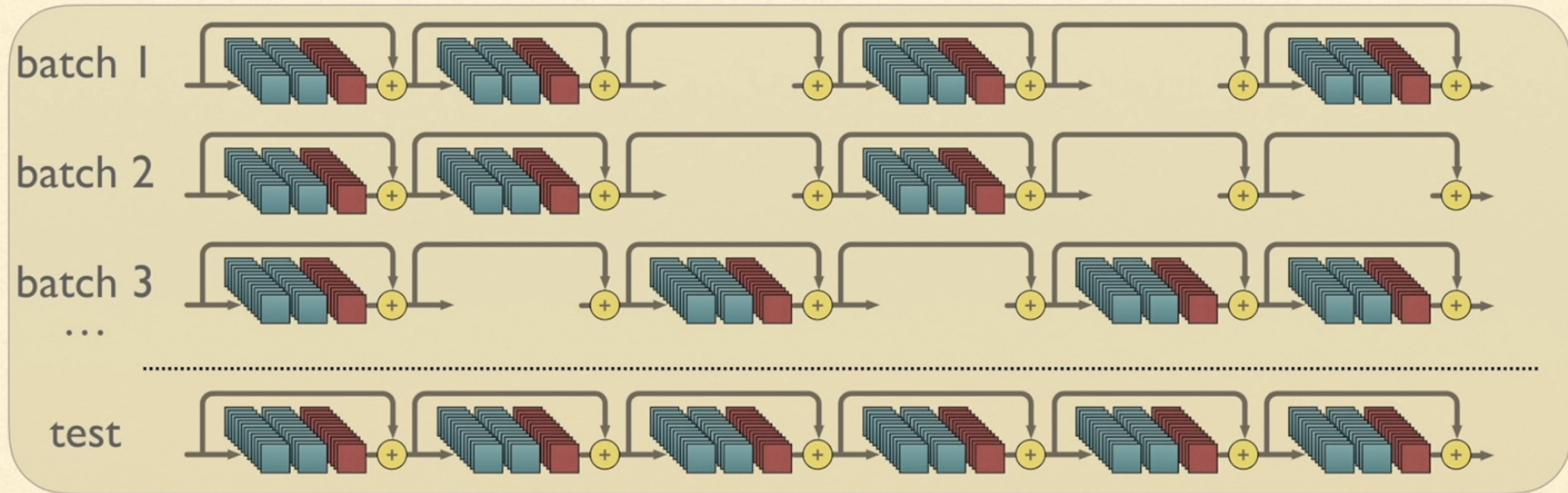
STOCHASTIC DEPTH



STOCHASTIC DEPTH



BENEFITS OF STOCHASTIC DEPTH

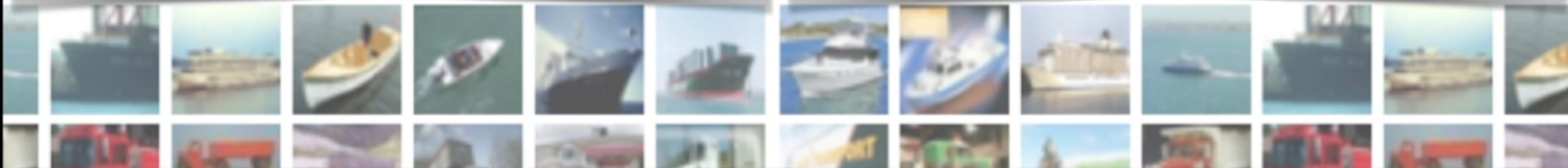
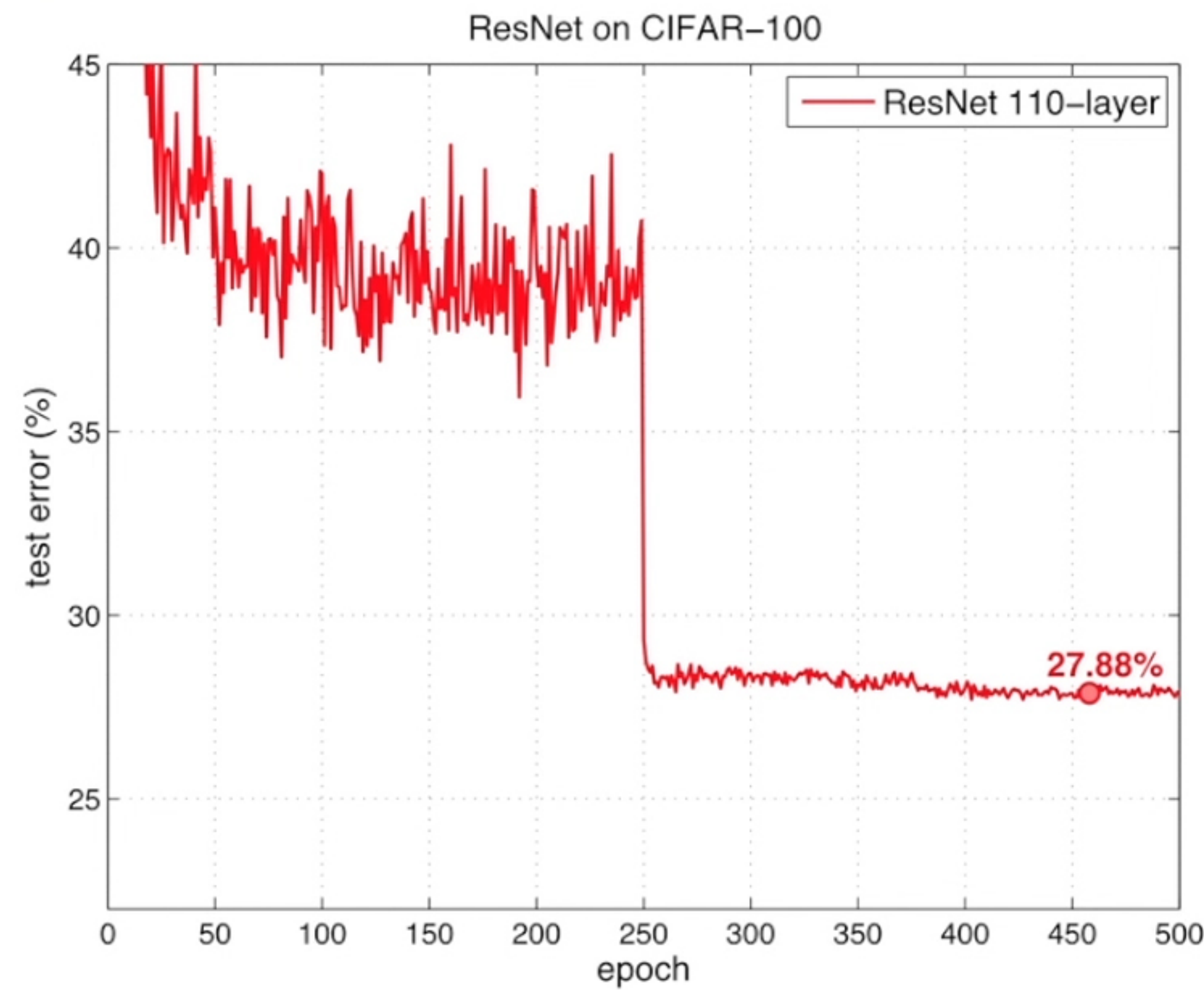
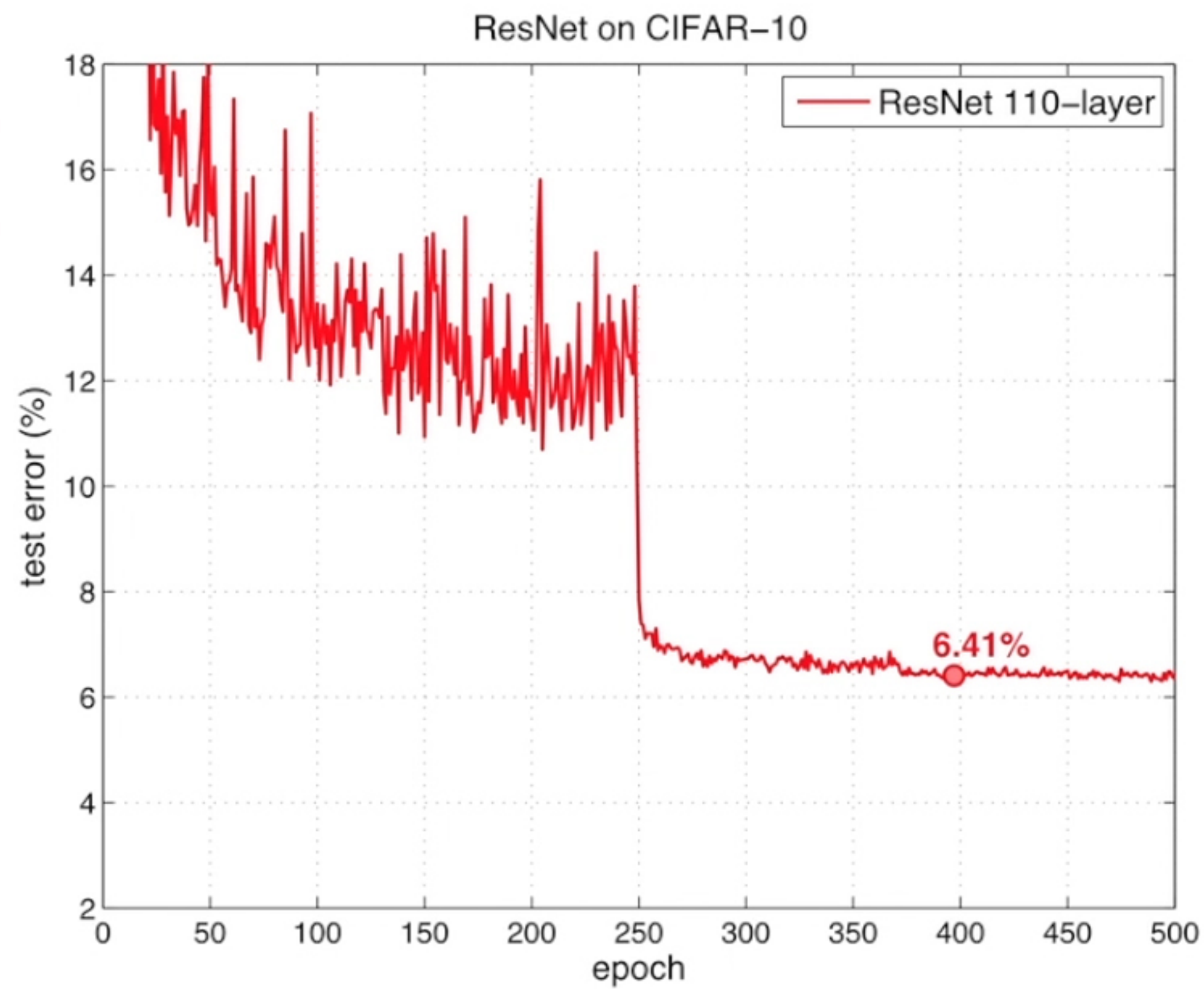


Train short networks, get deep networks

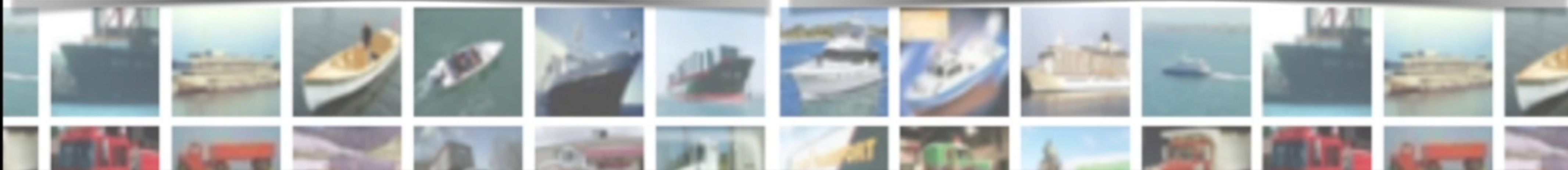
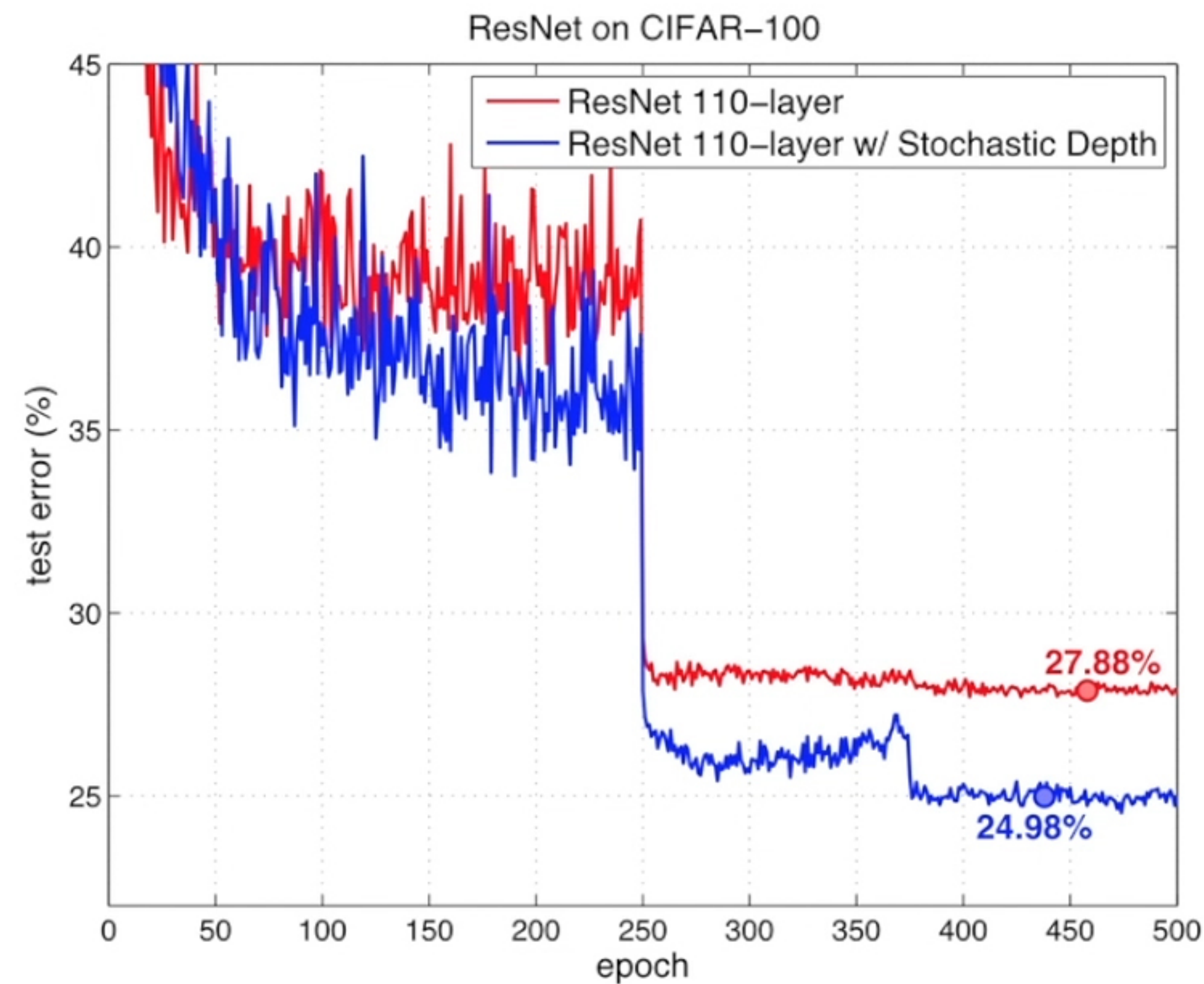
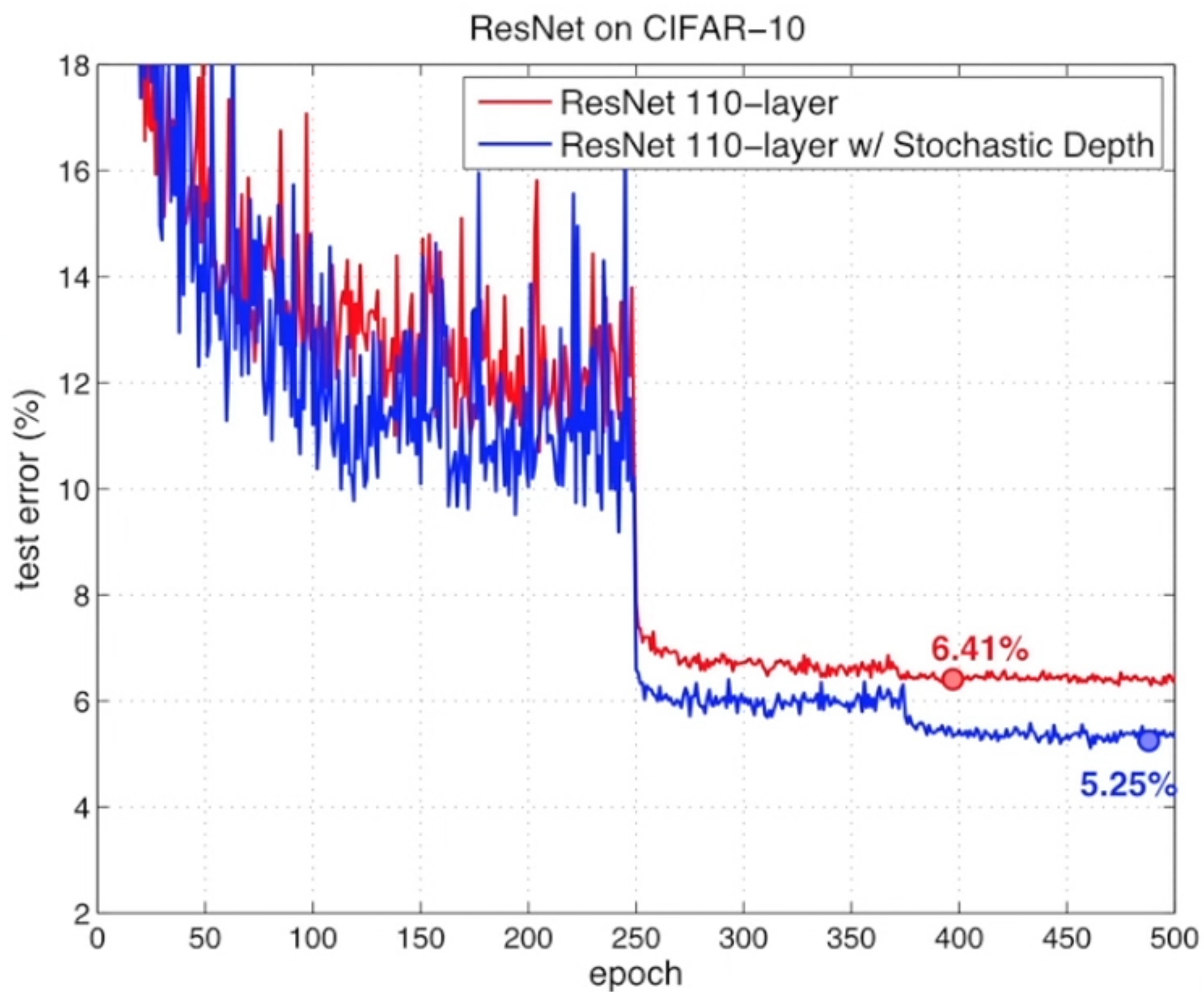
Implicit ensemble of 2^L models

Speedup 25% during training

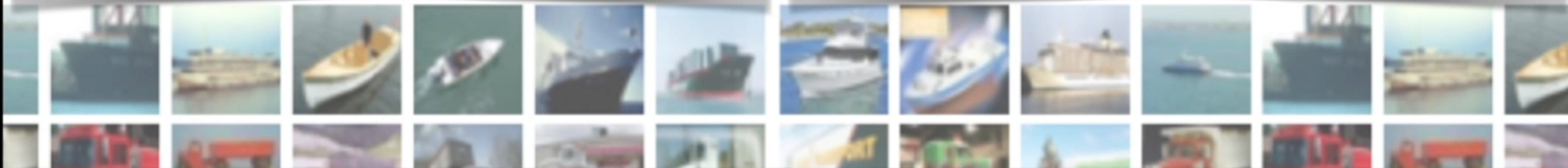
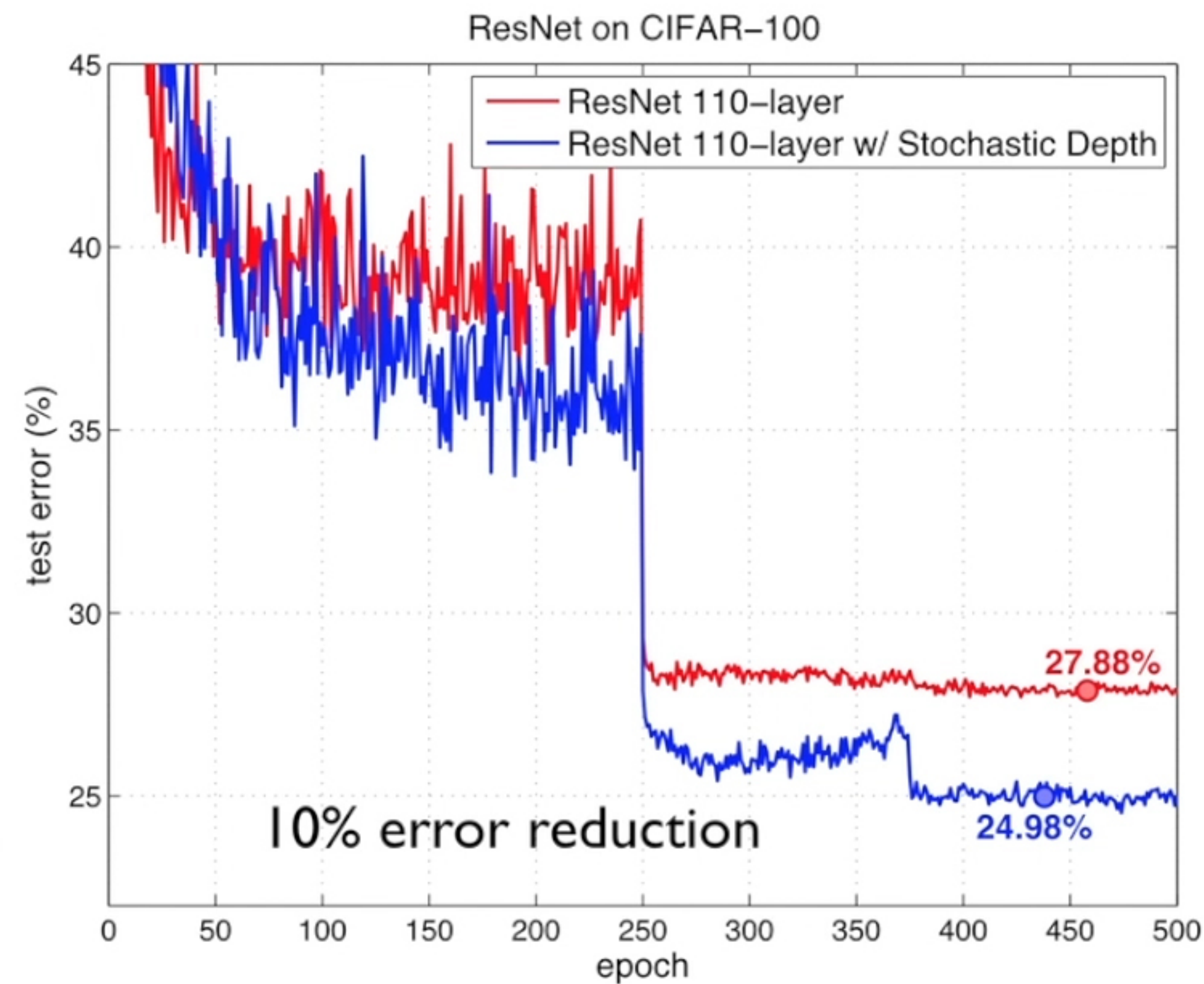
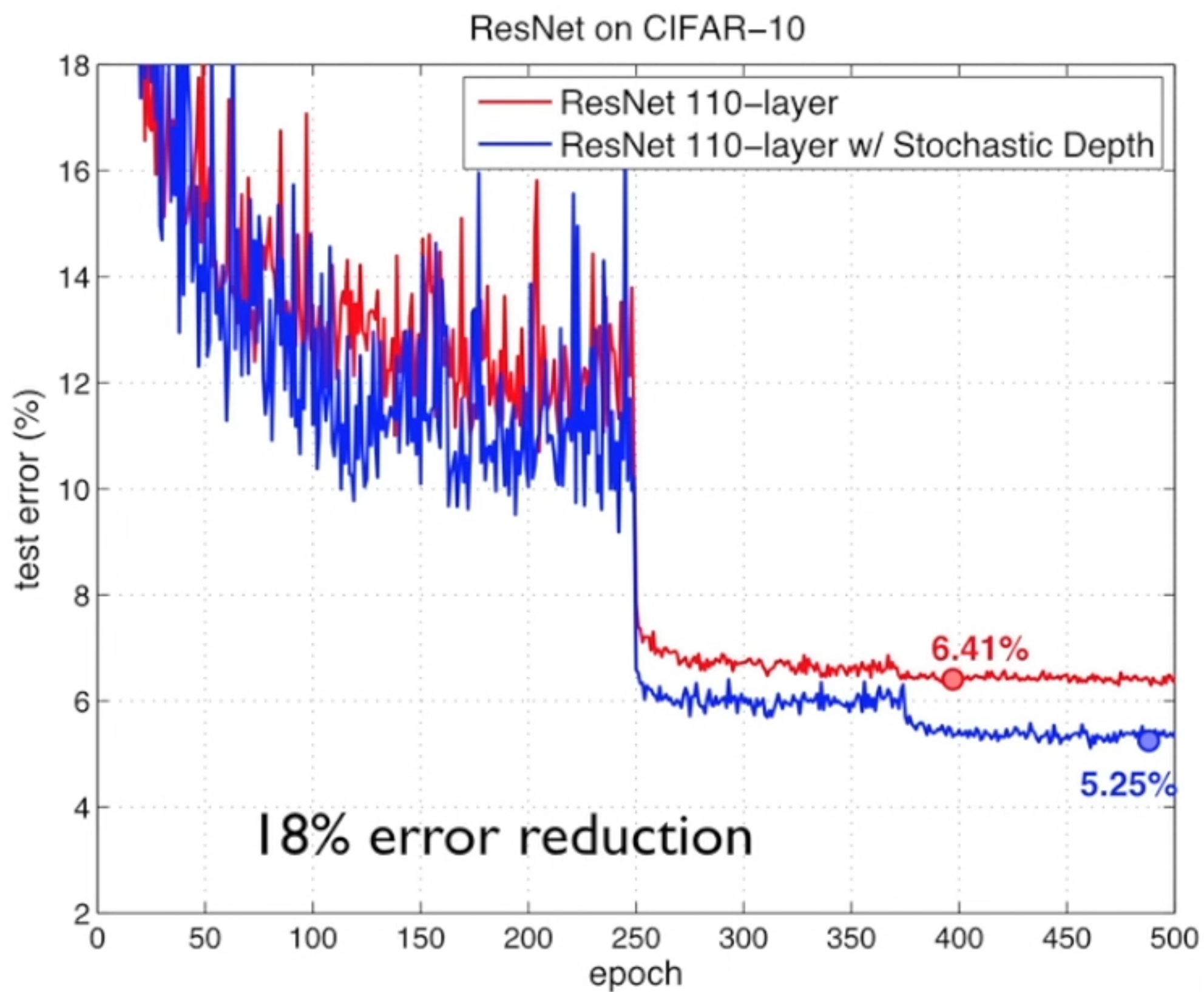
CIFAR-10 & CIFAR-100 (110-LAYER)



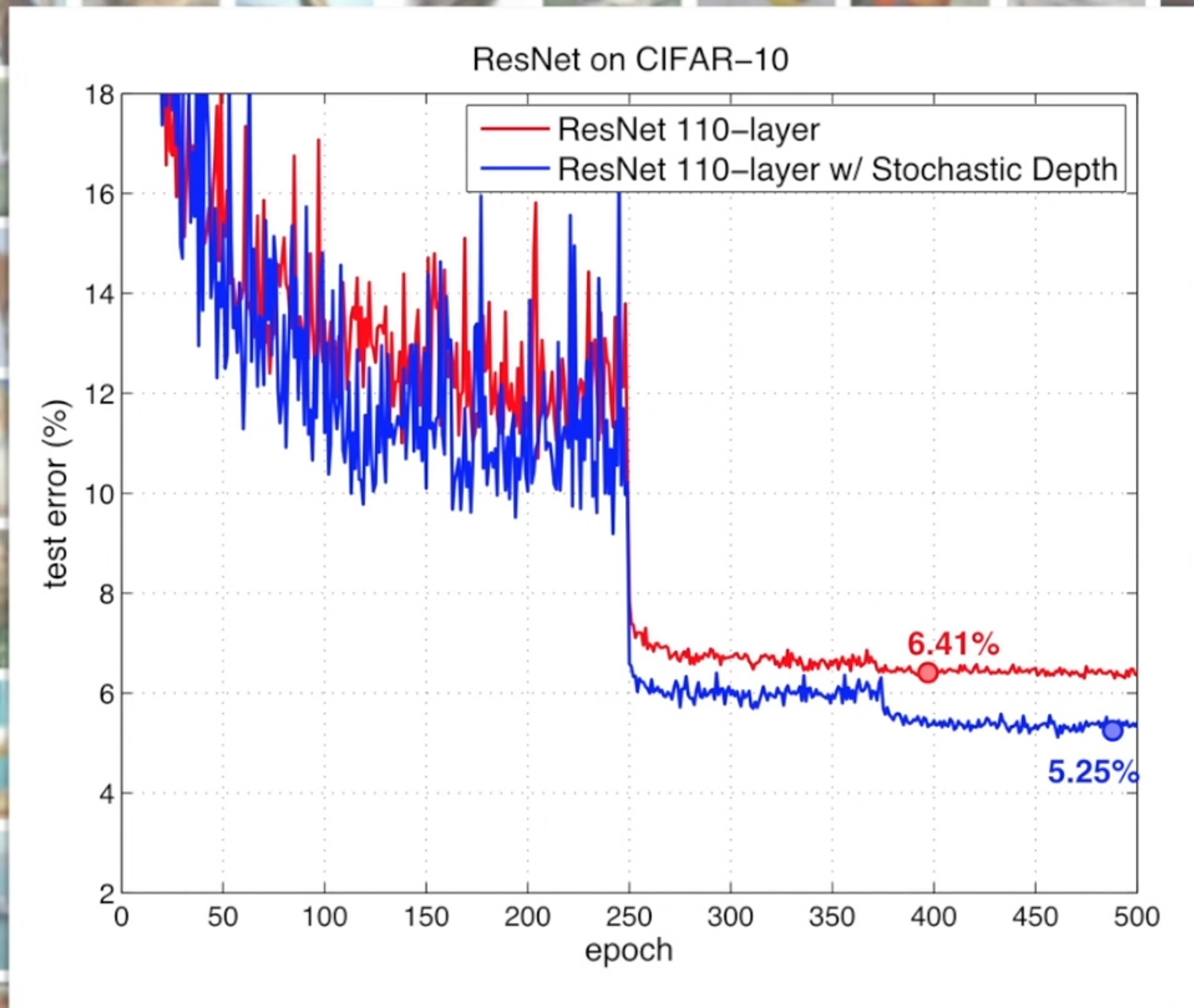
CIFAR-10 & CIFAR-100 (110-LAYER)



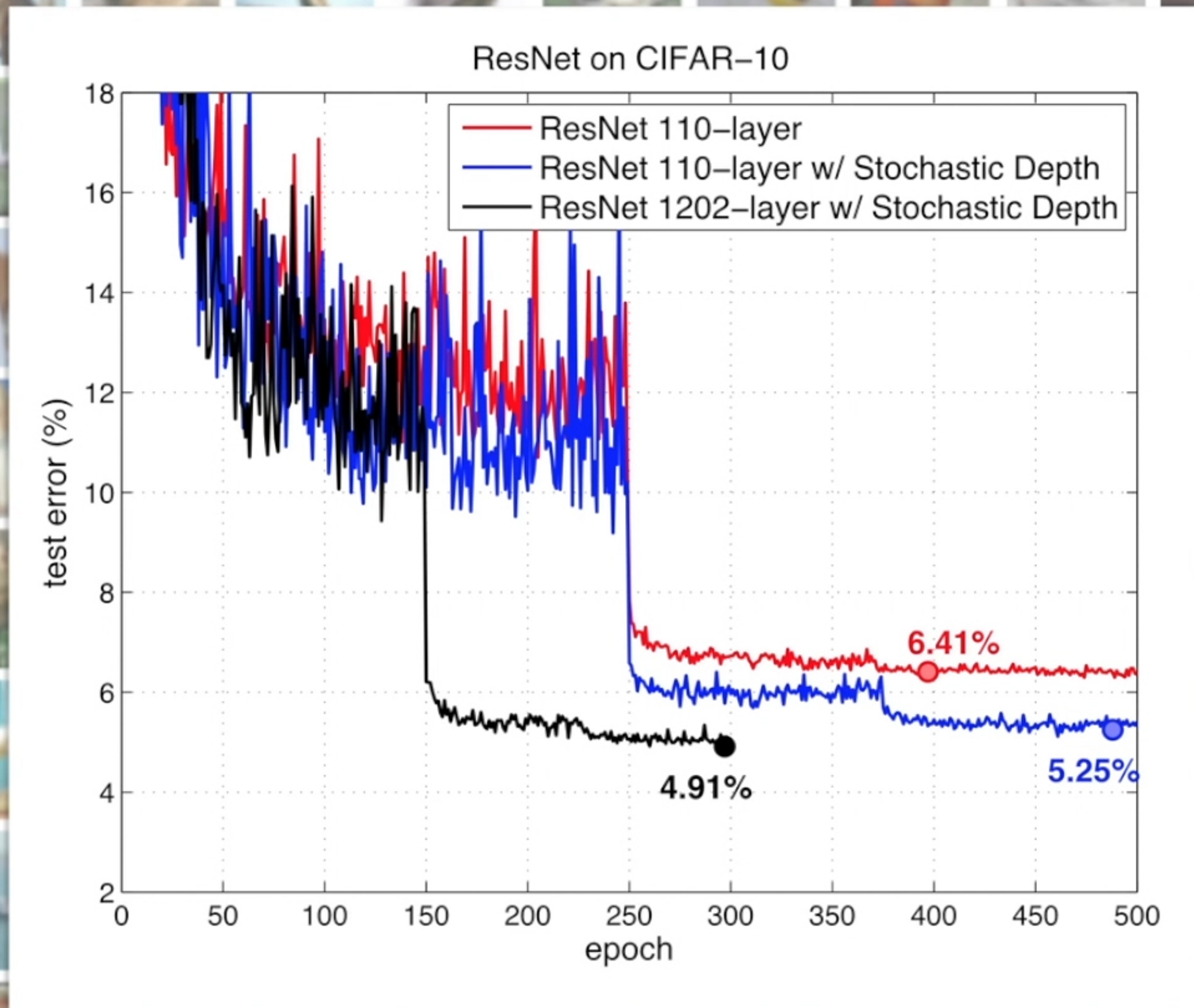
CIFAR-10 & CIFAR-100 (110-LAYER)



CIFAR-10 & CIFAR-100 (110-LAYER)



CIFAR-10 (1202-LAYER)



Come to Poster S-3A-08

More details!

More analysis!

More data sets!

Code: github.com/yueatsprograms/Stochastic_Depth

Email: ys646@cornell.edu