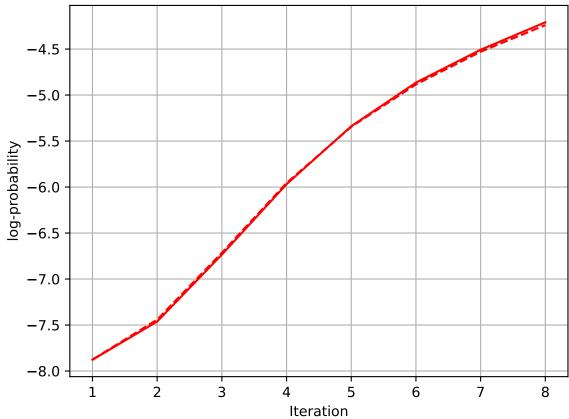
-0.3-0.4log-probability -0.5-0.6 -0.7-0.8 7 2 3 6 8 1 4 5 Iteration

FIG. 1: Plot of log-probability vs iterations for output

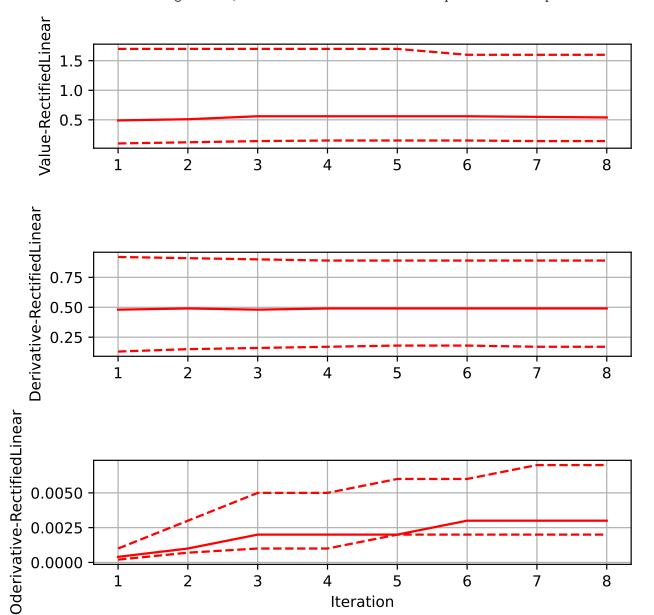
train /home/sourya/kaldi/egs/tamil\_telugu\_proj/s5\_r3/telugu\_logs\_4/stage17\_jul18\_logsvalid /home/sourya/kaldi/egs/tamil\_telugu\_proj/s5\_r3/telugu\_logs\_4/stage17\_jul18\_logs

FIG. 2: Plot of log-probability vs iterations for output-xent



train /home/sourya/kaldi/egs/tamil\_telugu\_proj/s5\_r3/telugu\_logs\_4/stage17\_jul18\_logs
 valid /home/sourya/kaldi/egs/tamil\_telugu\_proj/s5\_r3/telugu\_logs\_4/stage17\_jul18\_logs

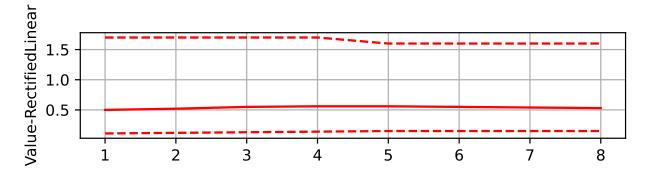
 ${\rm FIG.~3:~Per\text{-}dimension~average\text{-}(value,~derivative)~and~rms\text{-}oderivative~percentiles~for~prefinal\text{-}chain.relu}$ 

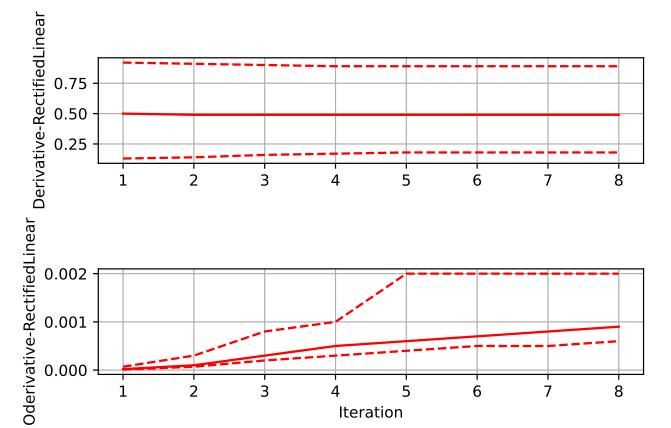




Iteration

 ${
m FIG.}\ 4:$  Per-dimension average-(value, derivative) and rms-oderivative percentiles for prefinal-xent.relu

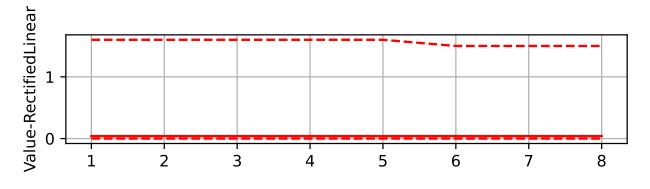


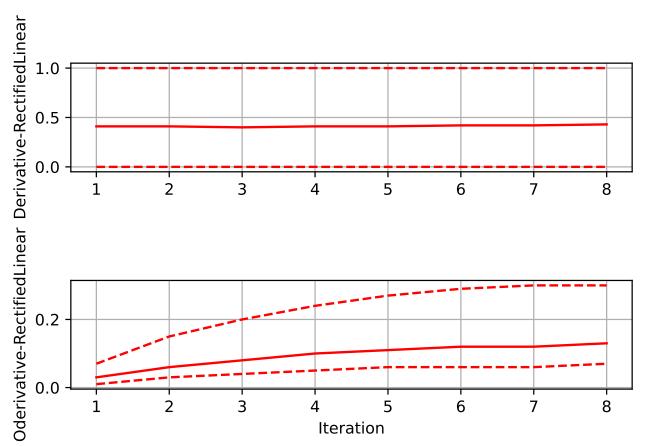




Iteration

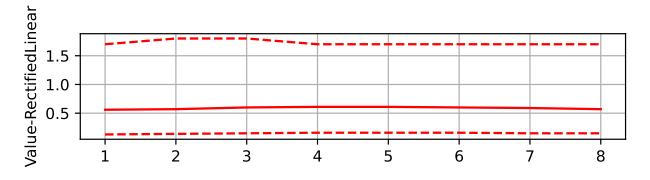
FIG. 5: Per-dimension average-(value, derivative) and rms-oderivative percentiles for tdnn1.relu

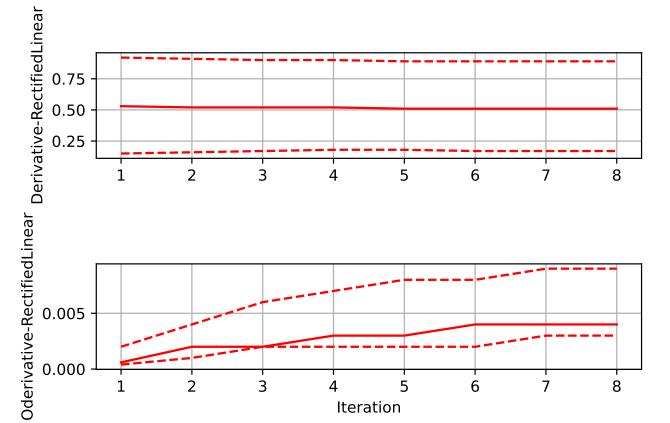






 ${\rm FIG.~6:~Per-dimension~average-(value,~derivative)~and~rms-oderivative~percentiles~for~tdnnf10.relu}$ 





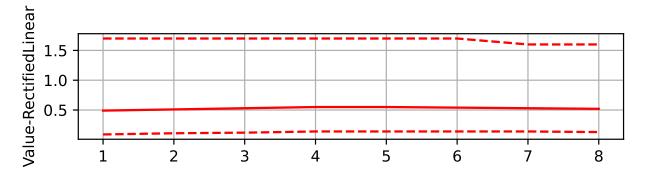
0.005

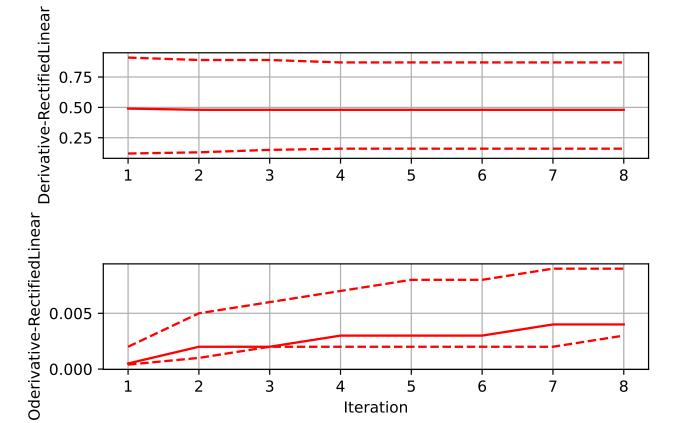
0.000



Iteration

 ${\rm FIG.~7:~Per-dimension~average-(value,~derivative)~and~rms-oderivative~percentiles~for~tdnnf11.relu}$ 





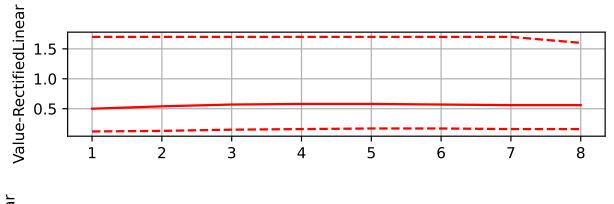
0.005

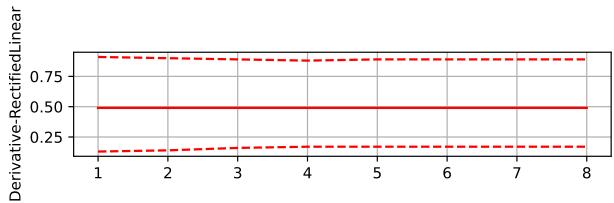
0.000

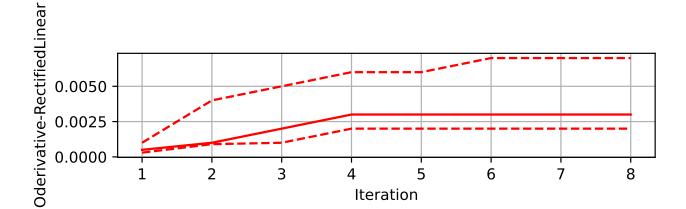


Iteration

FIG. 8: Per-dimension average-(value, derivative) and rms-oderivative percentiles for tdnnf12.relu

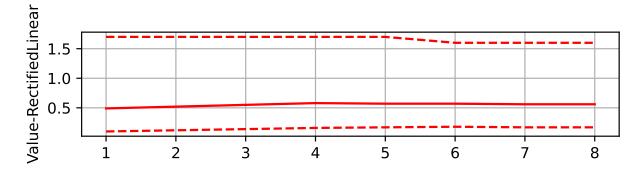


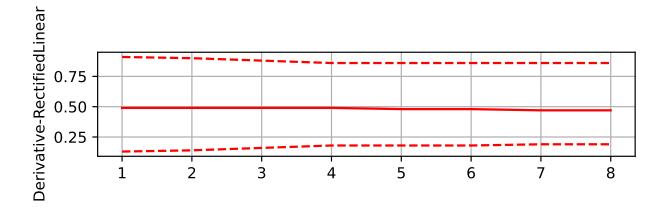






 ${\rm FIG.~9:~Per-dimension~average-(value,~derivative)~and~rms-oderivative~percentiles~for~tdnnf13.relu}$ 





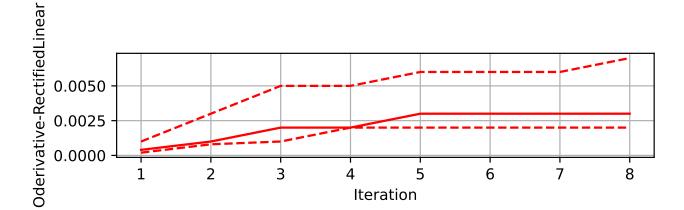
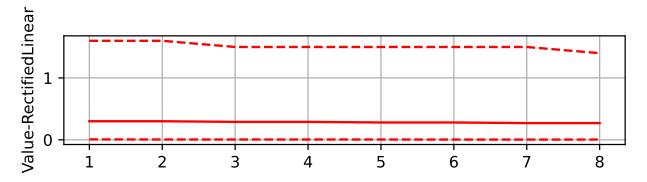
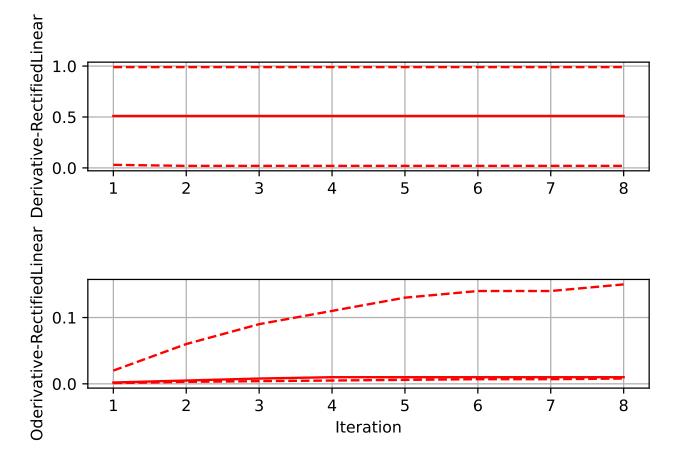




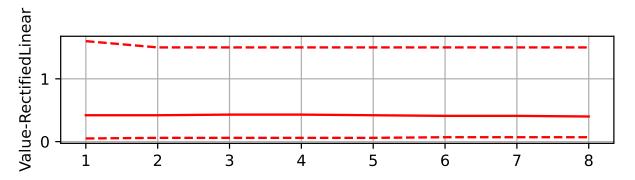
FIG. 10: Per-dimension average-(value, derivative) and rms-oderivative percentiles for tdnnf2.relu

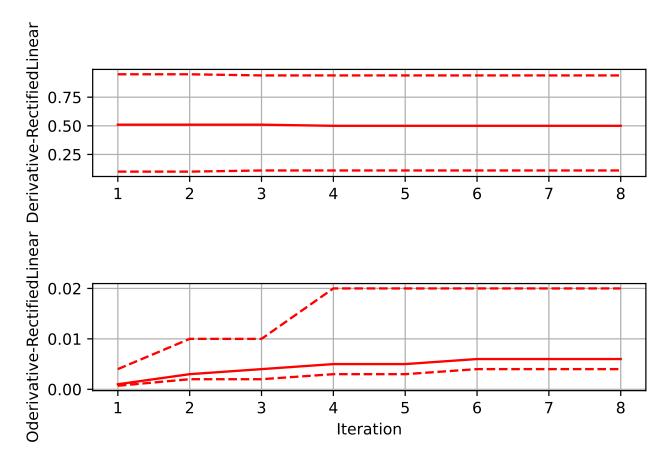






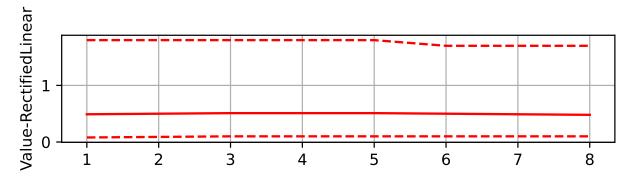
 ${\rm FIG.~11:~Per-dimension~average-(value,~derivative)~and~rms-oderivative~percentiles~for~tdnnf3.relu}$ 

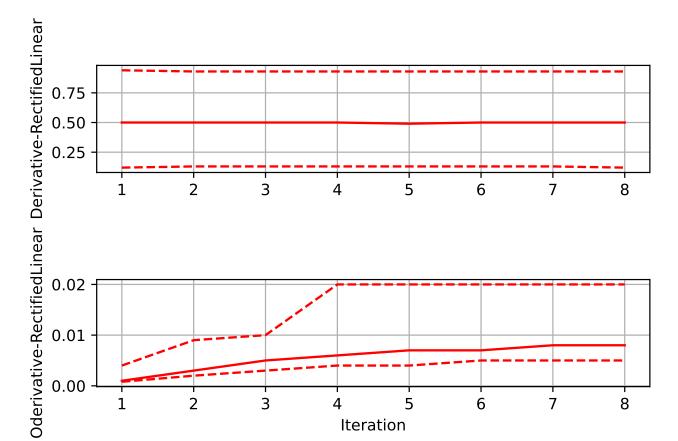






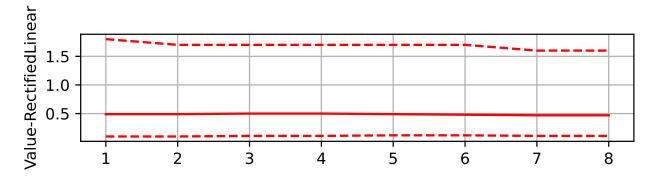
 $FIG.\ 12:\ Per-dimension\ average-(value,\ derivative)\ and\ rms-oderivative\ percentiles\ for\ tdnnf4.relu$ 

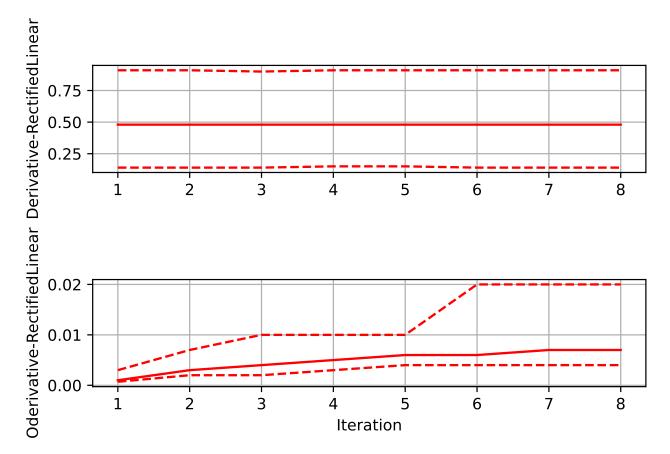






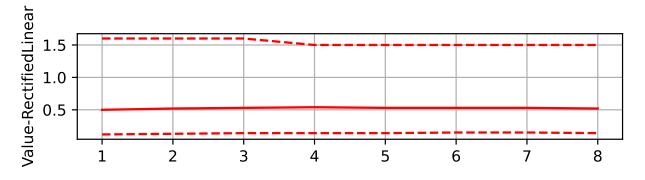
 ${
m FIG.~13:~Per-dimension~average-(value,~derivative)}$  and  ${
m rms-oderivative~percentiles~for~tdnnf5.relu}$ 

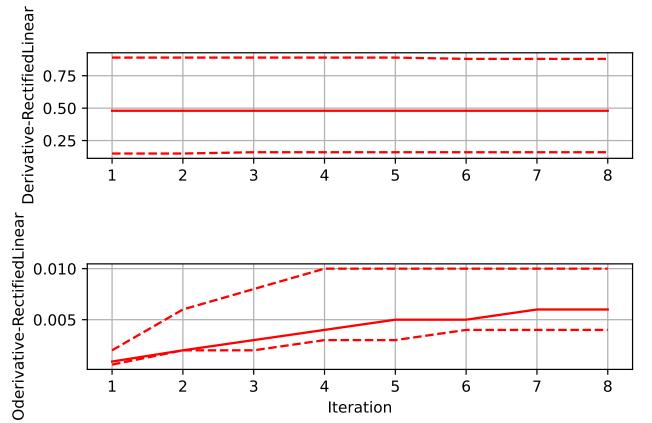


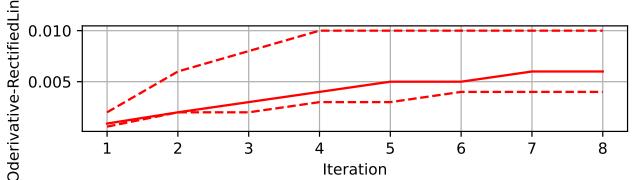




 $FIG.\ 14:\ Per-dimension\ average-(value,\ derivative)\ and\ rms-oderivative\ percentiles\ for\ tdnnf6.relu$ 

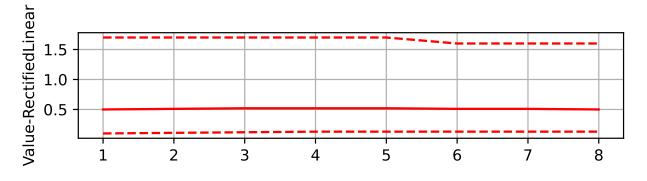


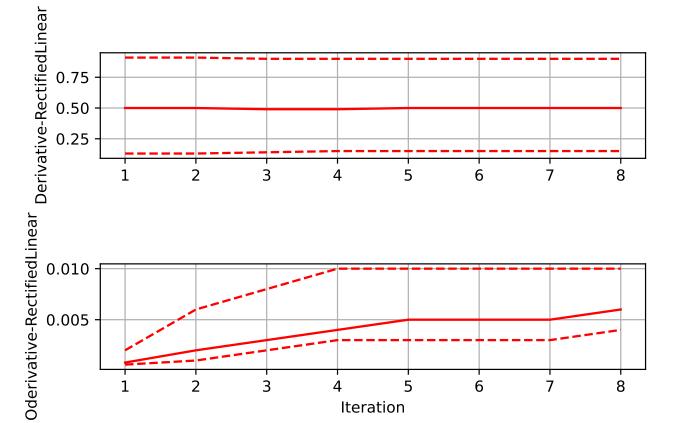


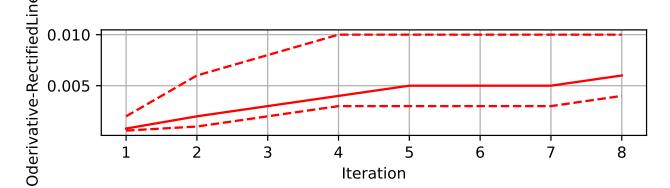




 $FIG.\ 15:\ \texttt{Per-dimension}\ average-(\texttt{value},\ \texttt{derivative})\ \texttt{and}\ \texttt{rms-oderivative}\ \texttt{percentiles}\ \texttt{for}\ \texttt{tdnnf7.relu}$ 

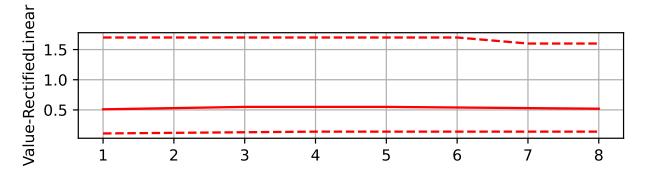


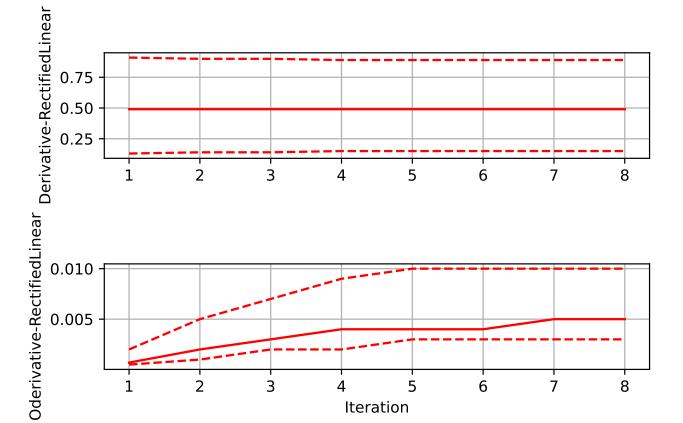






 $FIG.\ 16:\ Per-dimension\ average-(value,\ derivative)\ and\ rms-oderivative\ percentiles\ for\ tdnnf8.relu$ 

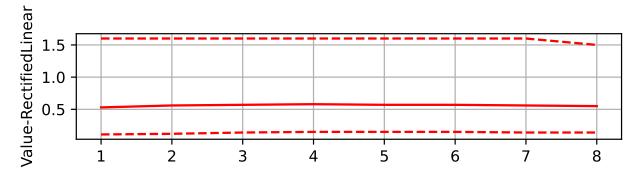


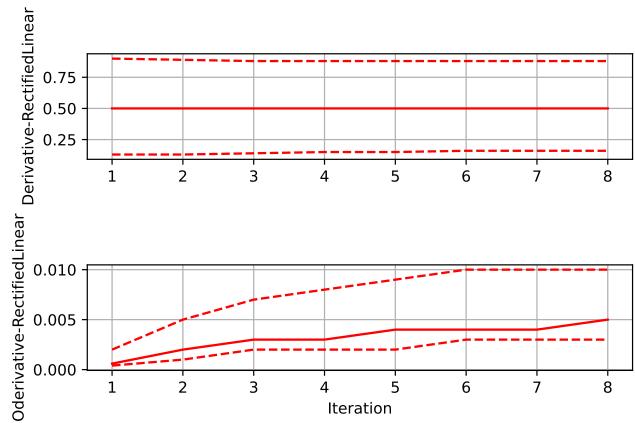


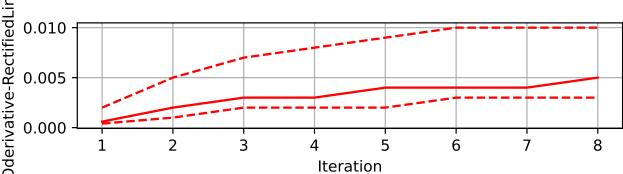


Iteration

FIG. 17: Per-dimension average-(value, derivative) and rms-oderivative percentiles for tdnnf9.relu









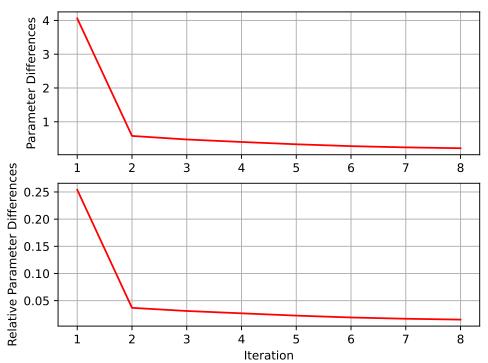
 ${\rm FIG.}\ 18:$  Parameter differences at output-xent.affine

Parameter Differences 1.4 1.0 1.0 8.0 0.6 Relative Parameter Differences 1.5 1.0 0.5 Iteration

 ${\rm FIG.}\ 19$ : Parameter differences at output.affine

Parameter Differences 0.65 0.60 0.55 0.50 0.45 Relative Parameter Differences 2 3 4 5 6 1 8 0.015 0.014 0.013 0.012 0.011 2 6 i 3 5 Iteration

 $FIG.\ 20:\ {\tt Parameter\ differences\ at\ prefinal-chain.affine}$ 



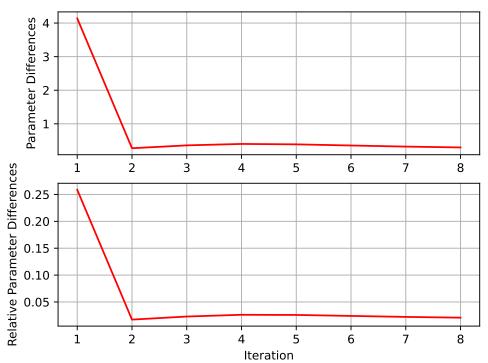
 $FIG.\ 21:\ {\tt Parameter\ differences\ at\ prefinal-chain.linear}$ 

Parameter Differences 7 6 3 5 8 1 4 Relative Parameter Differences 0.25 0.20 0.15 0.10 0.05 i 2 3 5 Iteration

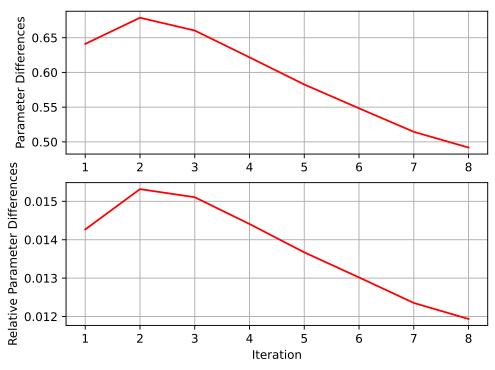
FIG. 22: Parameter differences at prefinal-1



 $FIG.\ 23\hbox{: Parameter differences at prefinal-xent.} affine$ 



 $FIG.\ 24\hbox{: Parameter differences at prefinal-xent.linear}$ 



 ${\rm FIG.}\ 25:$  Parameter differences at tdnn1.affine

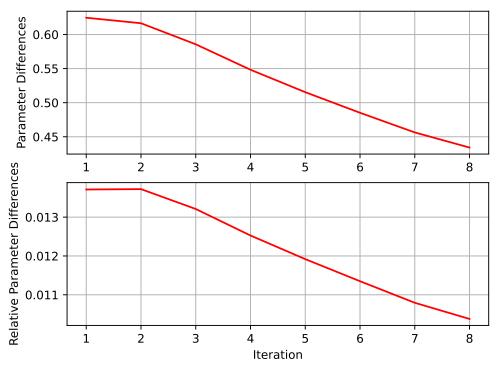


FIG. 26: Parameter differences at tdnnf10.affine

Relative Parameter Differences Parameter Differences 1.25 1.00 0.75 0.50 0.25 7 2 3 5 8 i 4 6 0.12 0.10 0.08 0.06 0.04 2 8 3 1 5 Iteration i

FIG. 27: Parameter differences at tdnnf10.linear

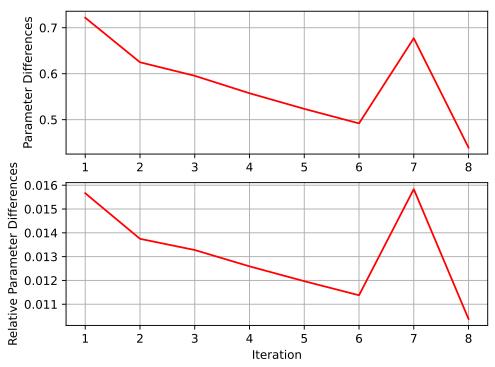
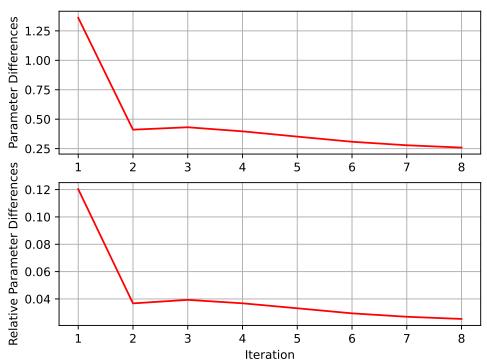
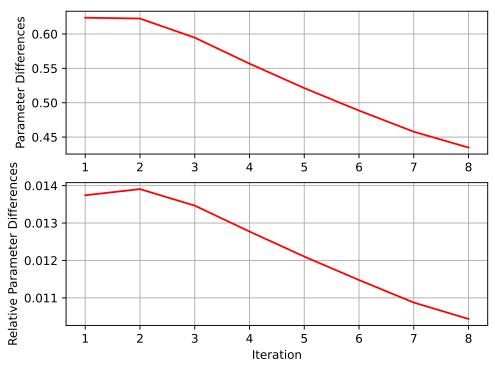


FIG. 28: Parameter differences at tdnnf11.affine



 ${
m FIG.}\ 29$ : Parameter differences at tdnnf11.linear



 ${\rm FIG.~30:}$  Parameter differences at tdnnf12.affine

Relative Parameter Differences Parameter Differences 1.25 1.00 0.75 0.50 0.25 8 7 2 5 3 i 4 6 0.12 0.10 0.08 0.06 0.04 8 2 3 i 5 4 Iteration

 ${\rm FIG.~31:}$  Parameter differences at tdnnf12.linear

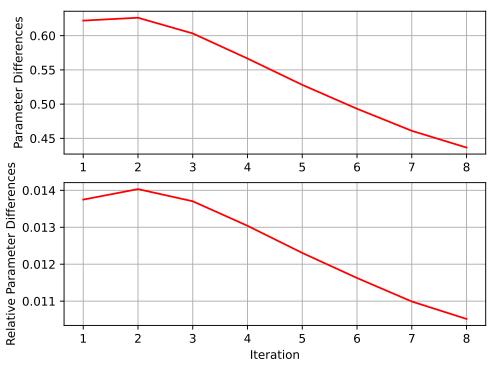
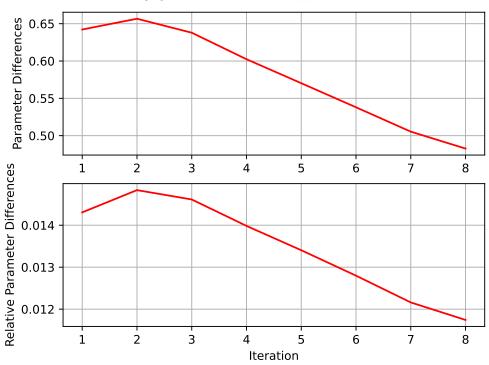


FIG. 32: Parameter differences at tdnnf13.affine

Relative Parameter Differences Parameter Differences 1.25 1.00 0.75 0.50 0.25 8 2 7 3 i 4 5 6 0.12 0.10 0.08 0.06 0.04 8 2 3 5 i 4 Iteration

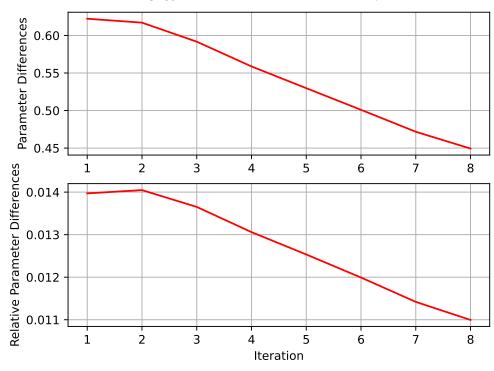
FIG. 33: Parameter differences at tdnnf13.linear



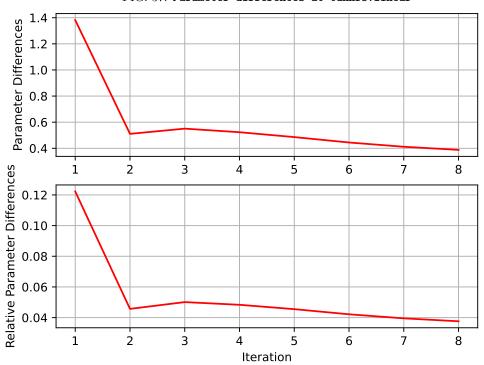
 ${\rm FIG.~34:}$  Parameter differences at tdnnf2.affine

Parameter Differences 1.2 1.0 0.8 0.6 8 Relative Parameter Differences 2 5 7 3 4 6 1 0.12 0.10 0.08 0.06 8 2 3 i 5 4 Iteration

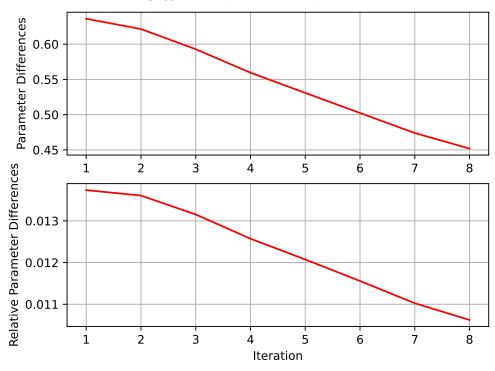
 ${\rm FIG.~35:}$  Parameter differences at tdnnf2.linear



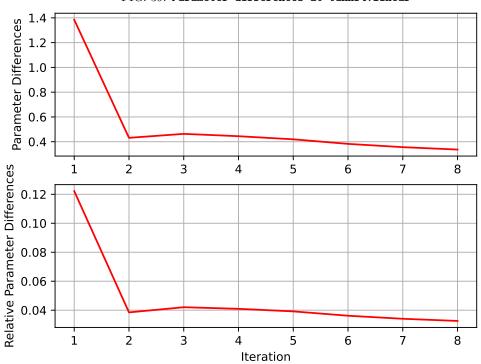
 ${\rm FIG.~36:}$  Parameter differences at tdnnf3.affine



 ${\rm FIG.~37:}$  Parameter differences at tdnnf3.linear



 ${\rm FIG.~38:}$  Parameter differences at tdnnf4.affine



 ${\rm FIG.~39:}$  Parameter differences at tdnnf4.linear

Relative Parameter Differences Parameter Differences 0.60 0.55 0.50 0.45 7 3 2 5 i 4 6 8 0.013 0.012 0.011 2 6 3 5 4 Iteration

FIG. 40: Parameter differences at tdnnf5.affine

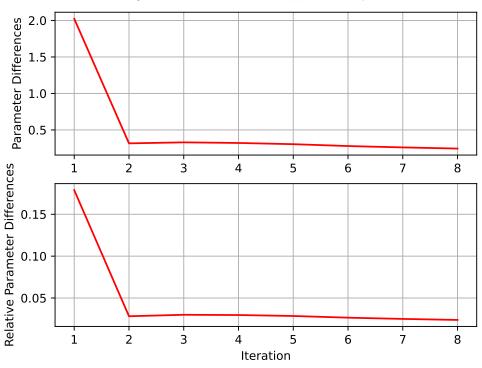


FIG. 41: Parameter differences at tdnnf5.linear

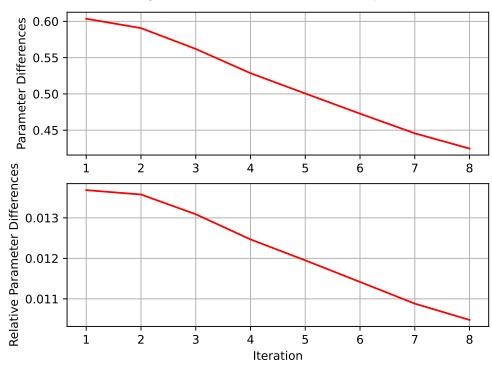


FIG. 42: Parameter differences at tdnnf6.affine

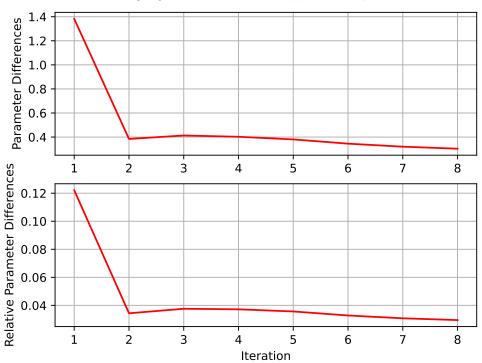


FIG. 43: Parameter differences at tdnnf6.linear

Parameter Differences 0.60 0.55 0.50 0.45 Relative Parameter Differences 7 3 5 2 6 i 4 8 0.013 0.012 0.011 4 5 Iteration 2 6 3 i 4

FIG. 44: Parameter differences at tdnnf7.affine

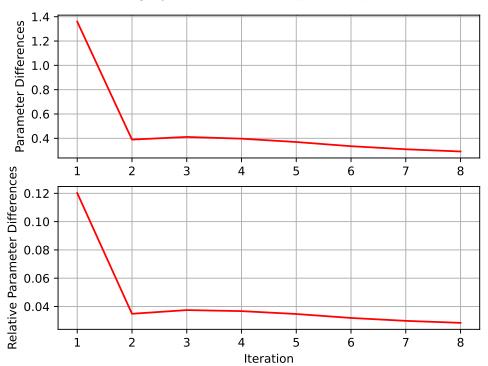
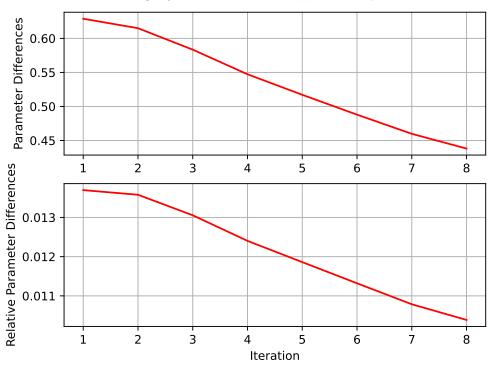


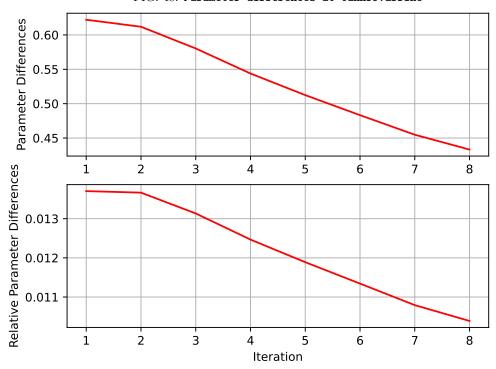
FIG. 45: Parameter differences at tdnnf7.linear



 ${\rm FIG.~46:}$  Parameter differences at tdnnf8.affine

Parameter Differences 1.2 1.0 8.0 0.6 0.4 7 8 Relative Parameter Differences 2 3 5 4 1 0.12 0.10 0.08 0.06 0.04 2 1 5 Iteration 8 3 i

FIG. 47: Parameter differences at tdnnf8.linear



 ${\rm FIG.~48:}$  Parameter differences at tdnnf9.affine

Relative Parameter Differences Parameter Differences 1.25 1.00 0.75 0.50 0.25 7 2 3 5 8 i 4 6 0.12 0.10 0.08 0.06 0.04 2 1 5 Iteration 8 3 i

 ${\rm FIG.}\ 49$ : Parameter differences at tdnnf9.linear