

Supplementary Material for
‘What is being transferred in transfer learning?’
Spectrum plots for Clipart

Behnam Neyshabur*

Google

neyshabur@google.com

Hanie Sedghi*

Google Brain

hsedghi@google.com

Chiyuan Zhang*

Google Brain

chiyuan@google.com

*Equal contribution. Authors ordered randomly.

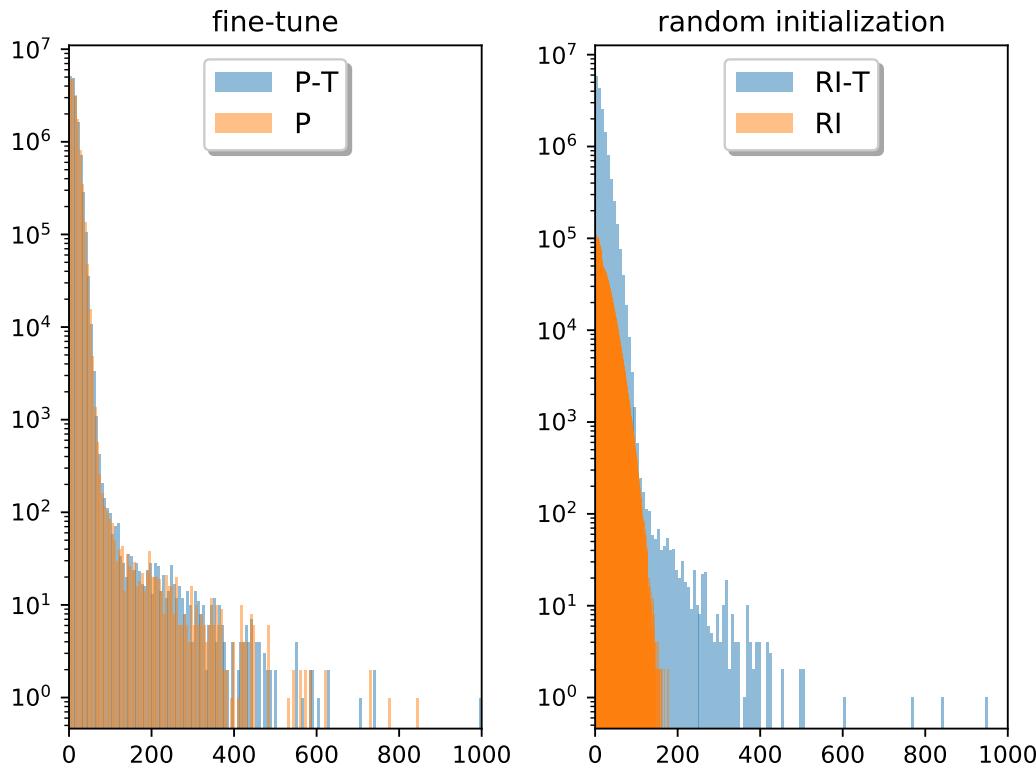


Figure 1: Spectrum for the whole network

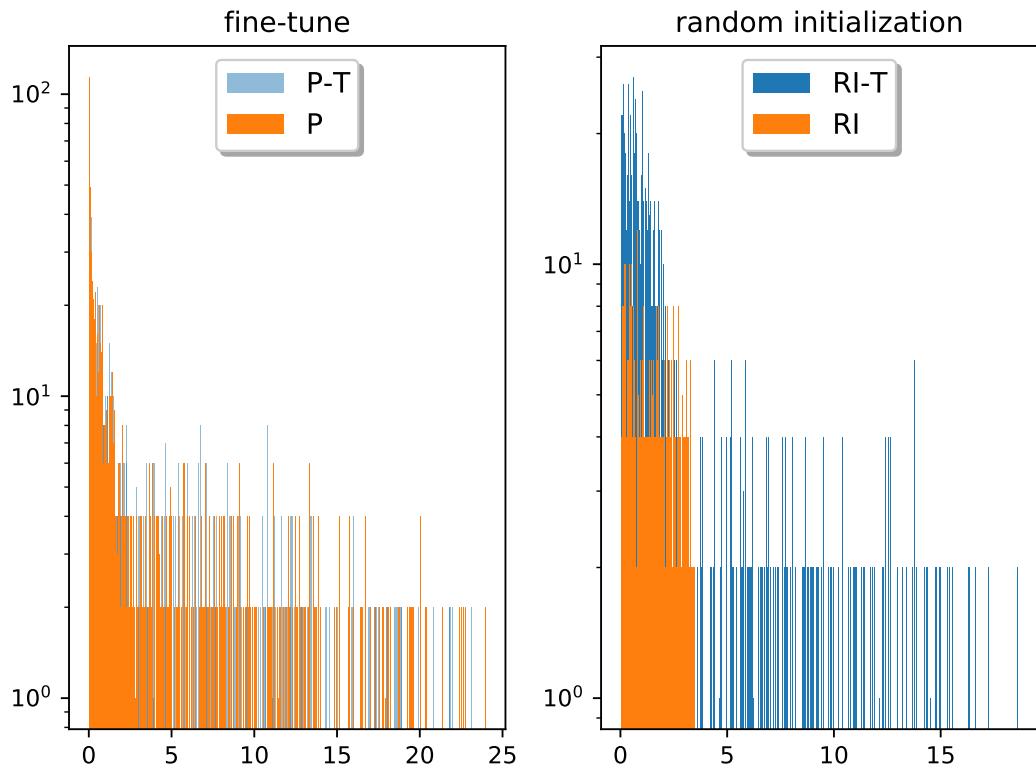


Figure 2: Spectrum Conv1

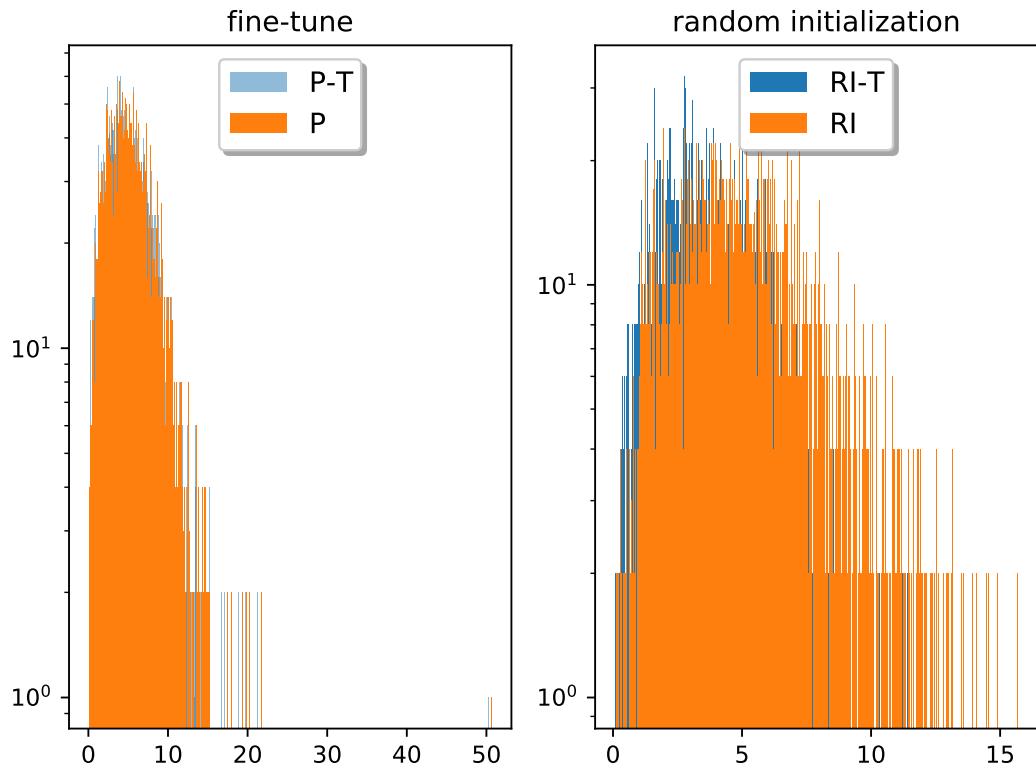


Figure 3: Spectrum Layer1.0 Conv1

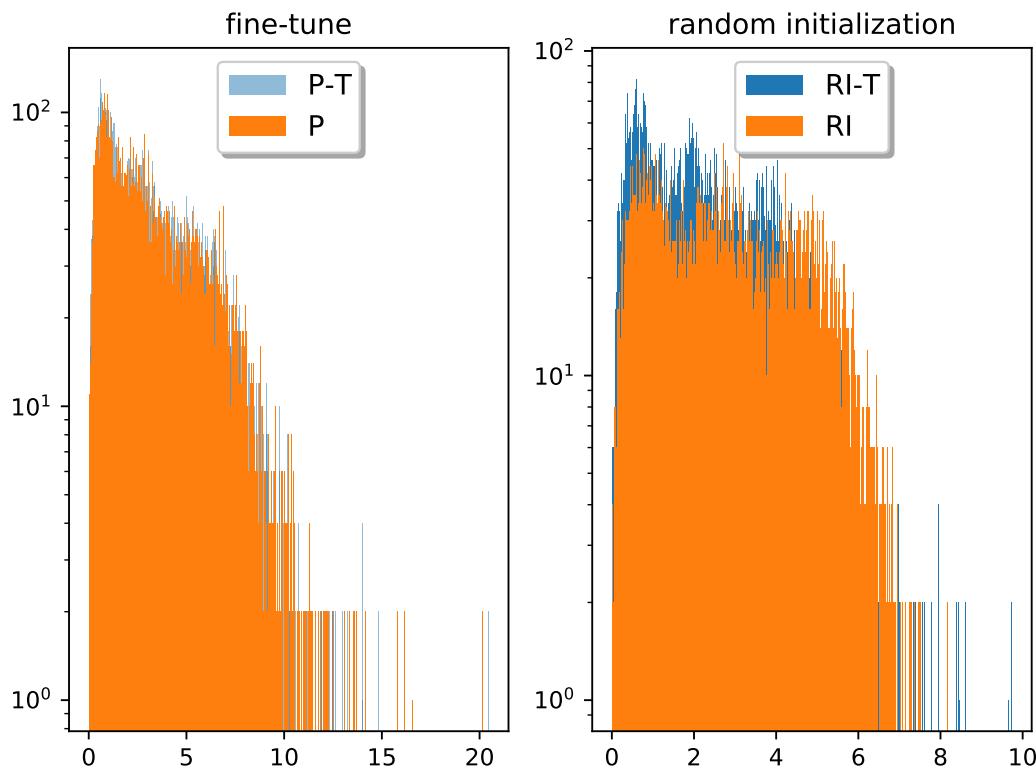


Figure 4: Spectrum Layer1.0 Conv2

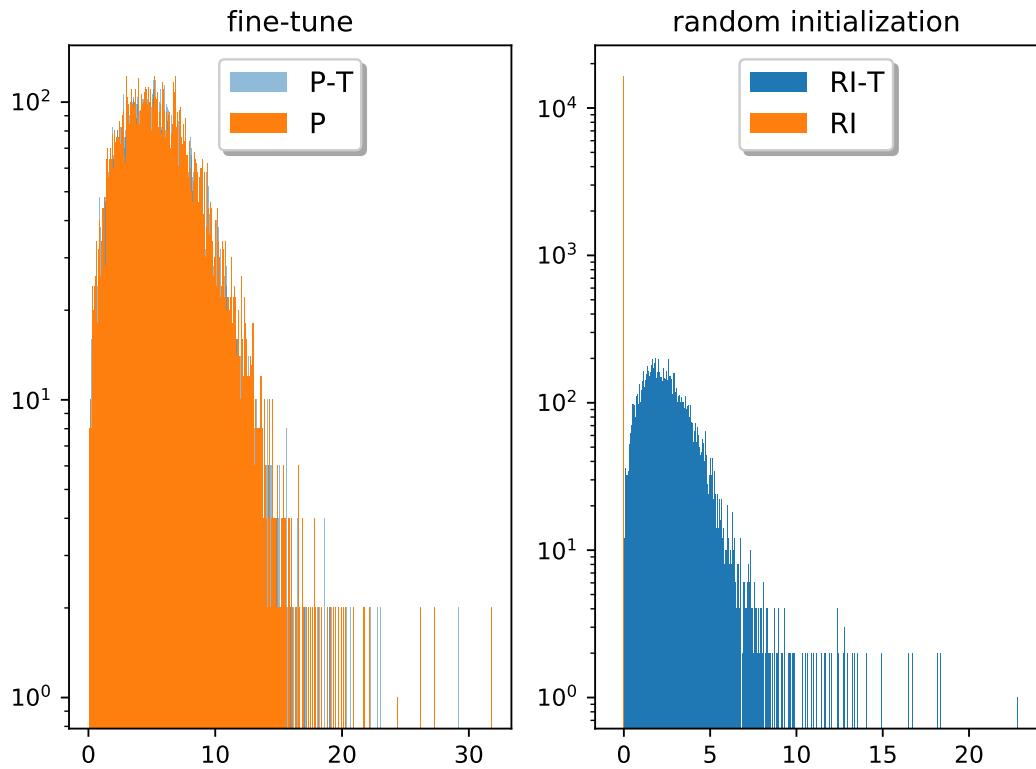


Figure 5: Spectrum Layer1.0 Conv3

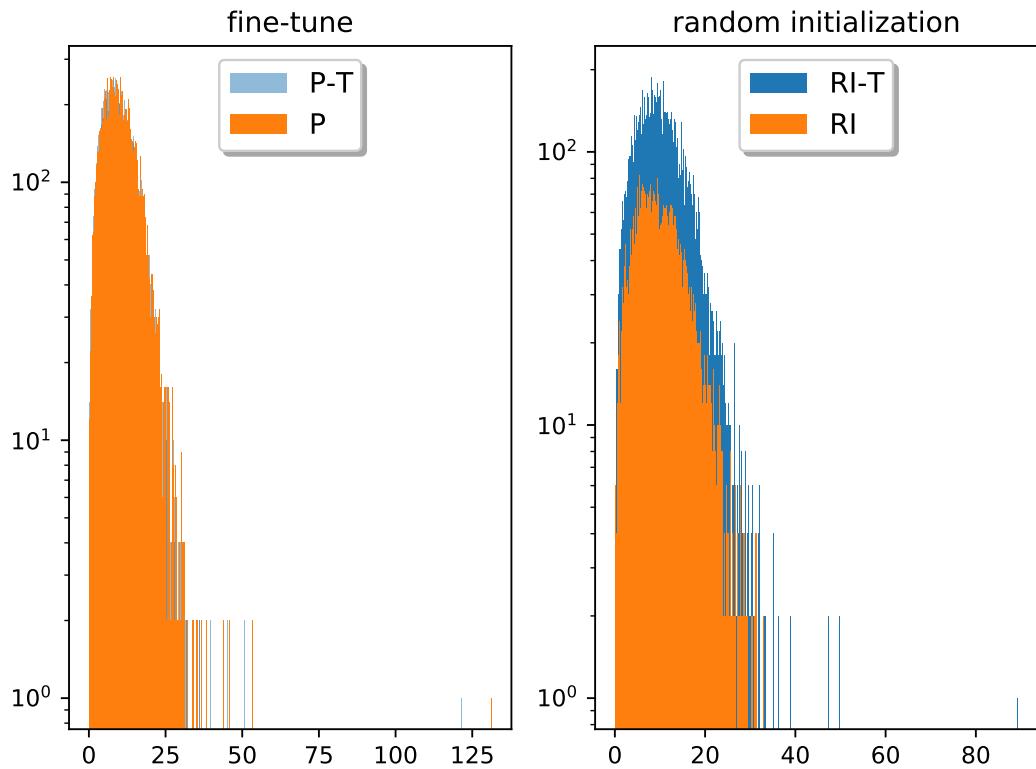


Figure 6: Spectrum Layer1.0 Downsample

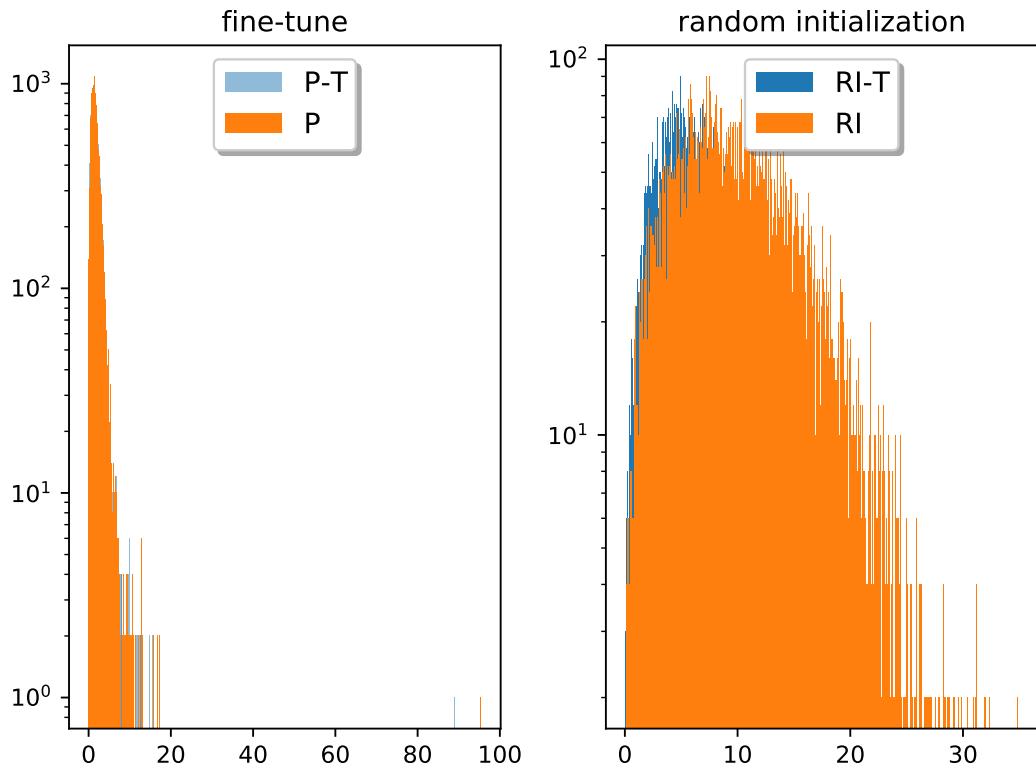


Figure 7: Spectrum Layer1.1 Conv1

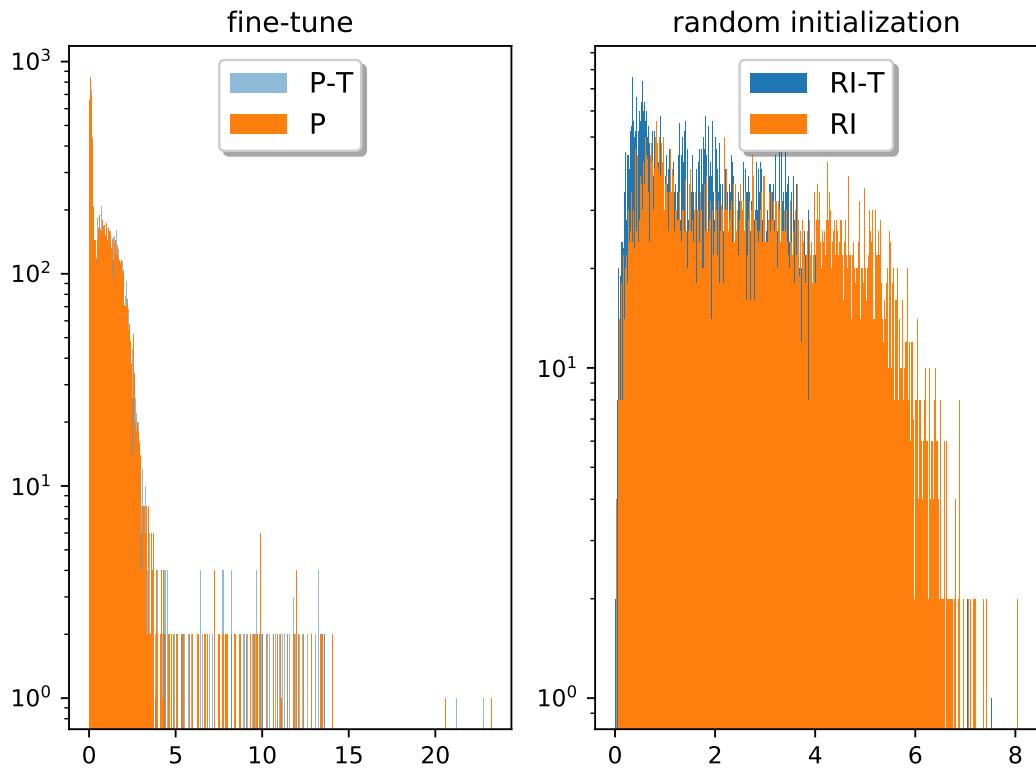


Figure 8: Spectrum Layer1.1 Conv2

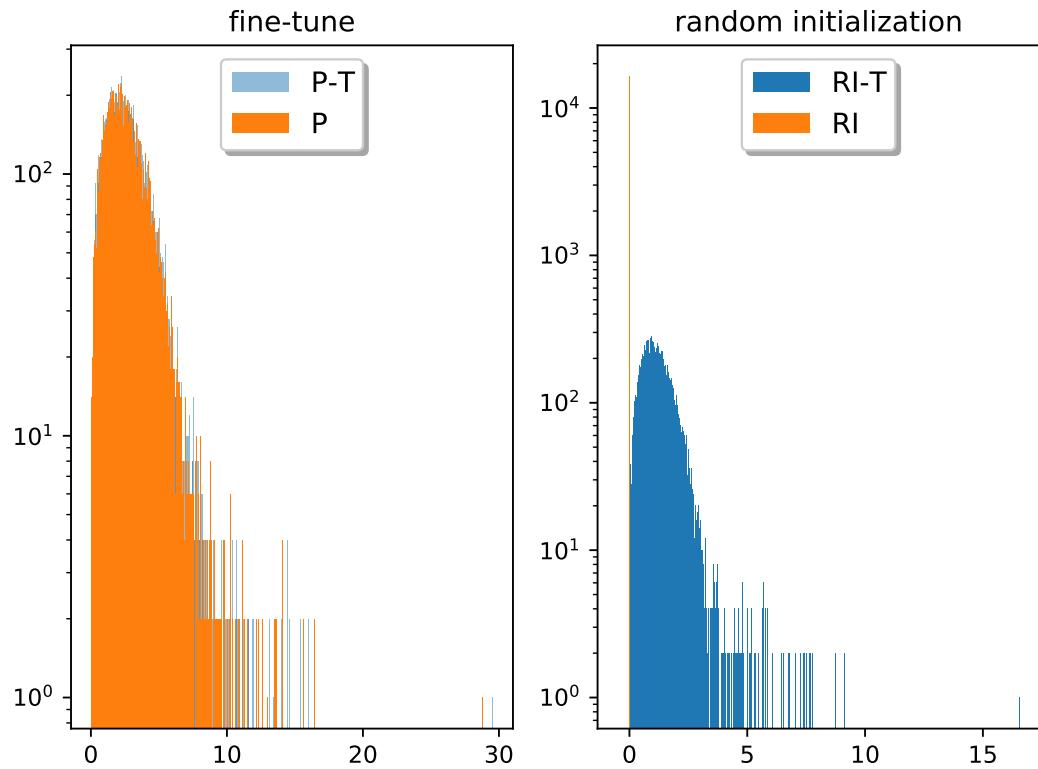


Figure 9: Spectrum Layer1.1 Conv3

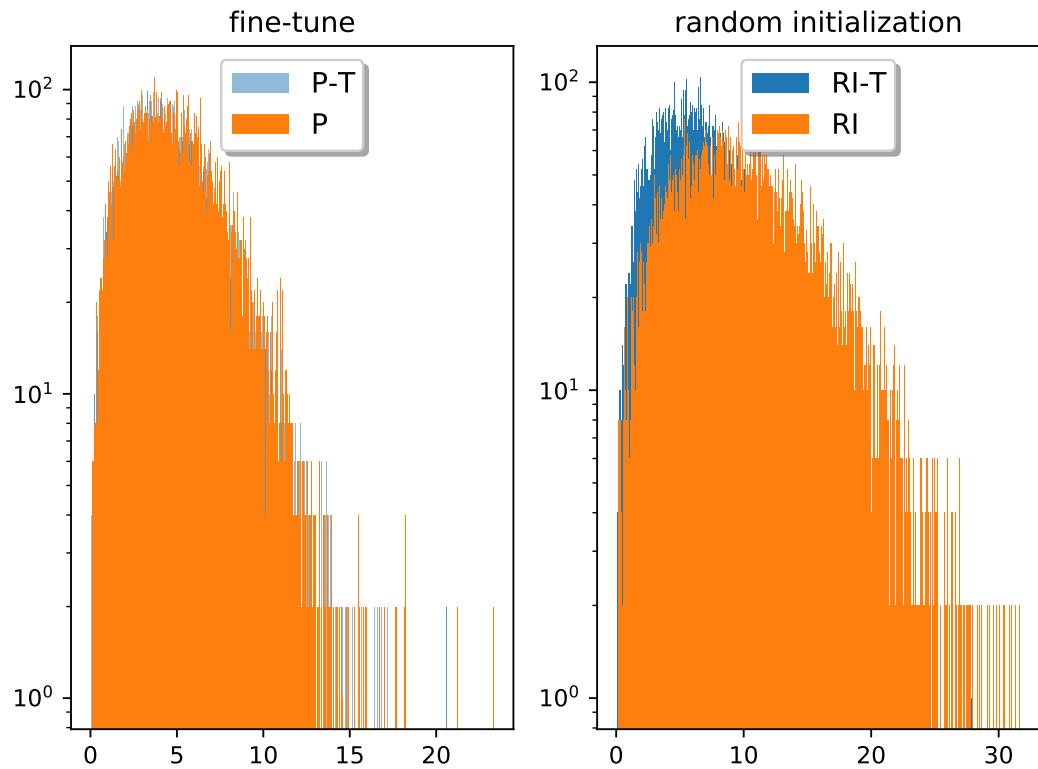


Figure 10: Spectrum Layer1.2 Conv1

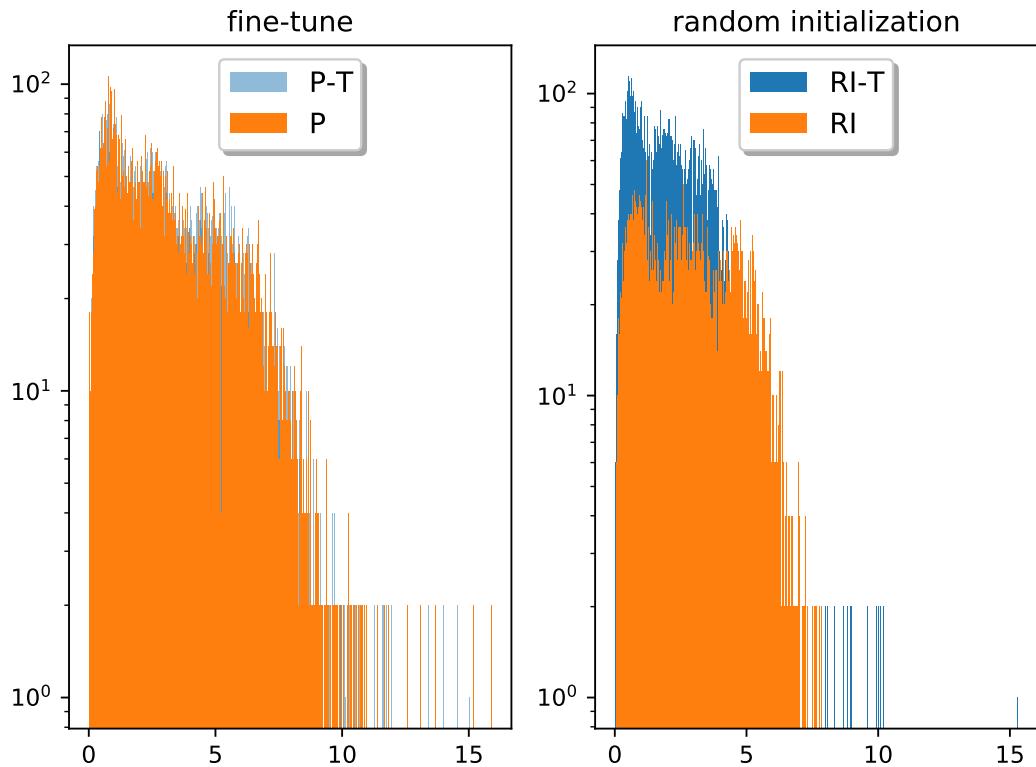


Figure 11: Spectrum Layer1.2 Conv2

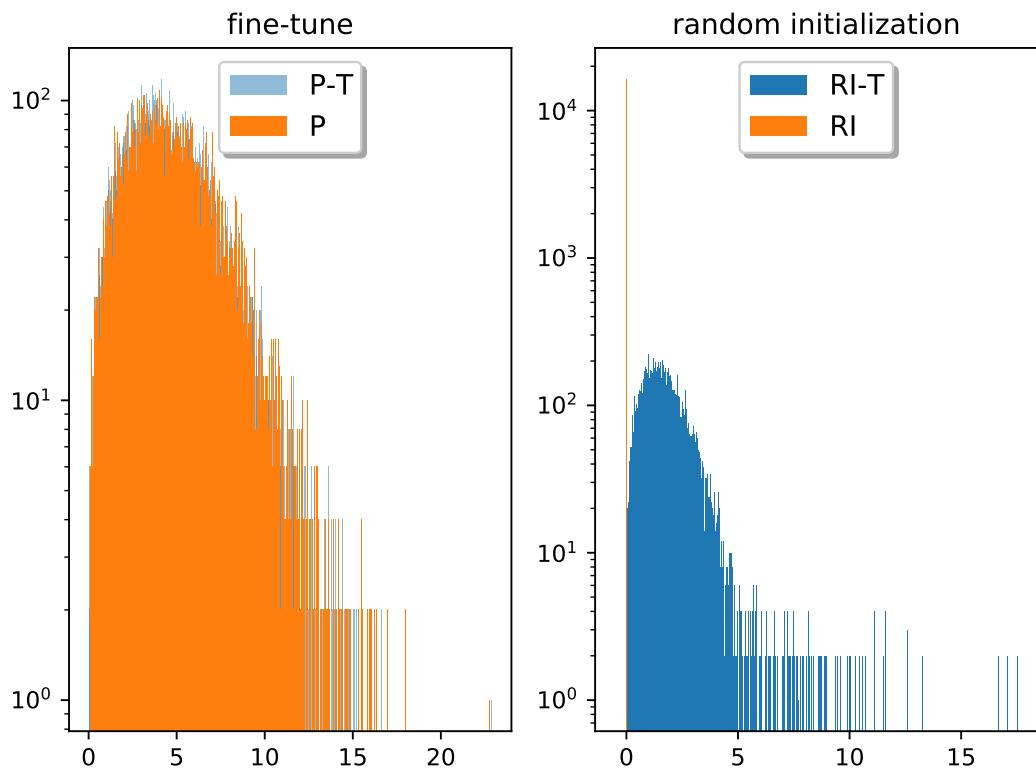


Figure 12: Spectrum Layer1.2 Conv3

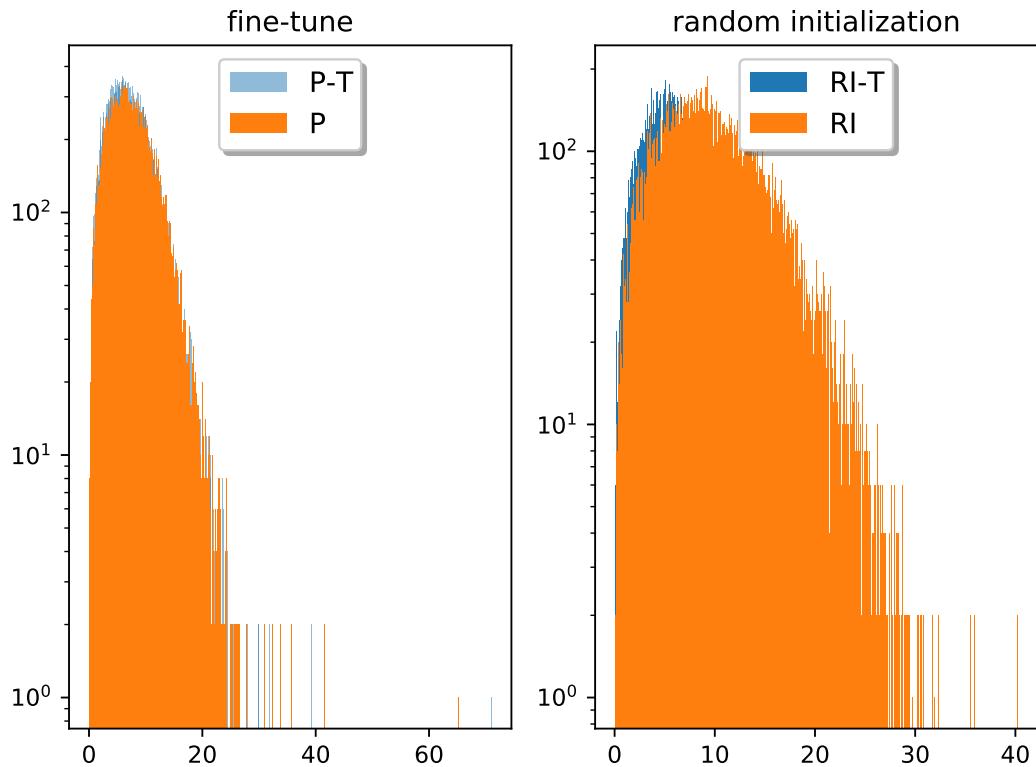


Figure 13: Spectrum Layer2.0 Conv1

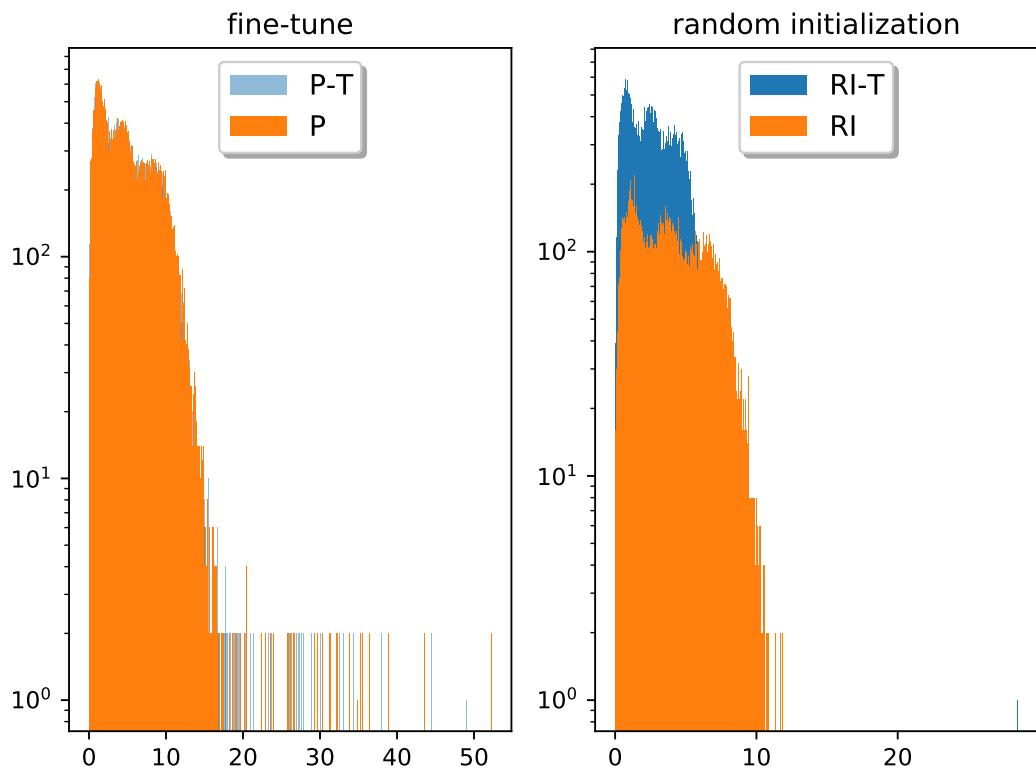


Figure 14: Spectrum Layer2.0 Conv2

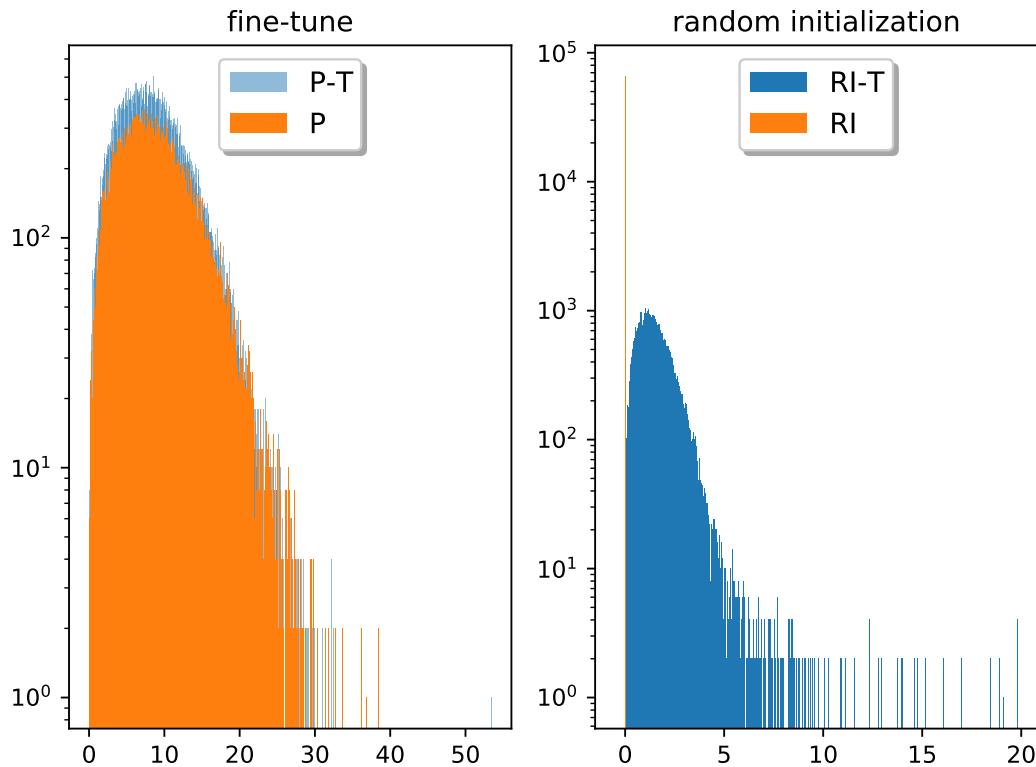


Figure 15: Spectrum Layer2.0 Conv3

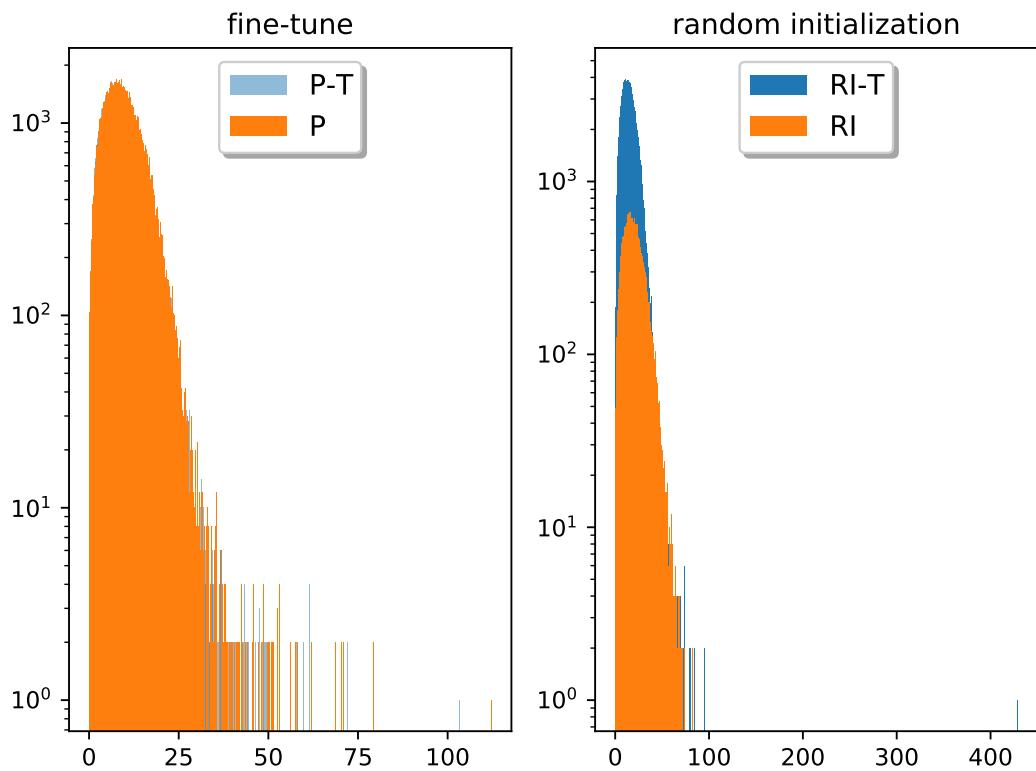


Figure 16: Spectrum Layer2.0 Downsample

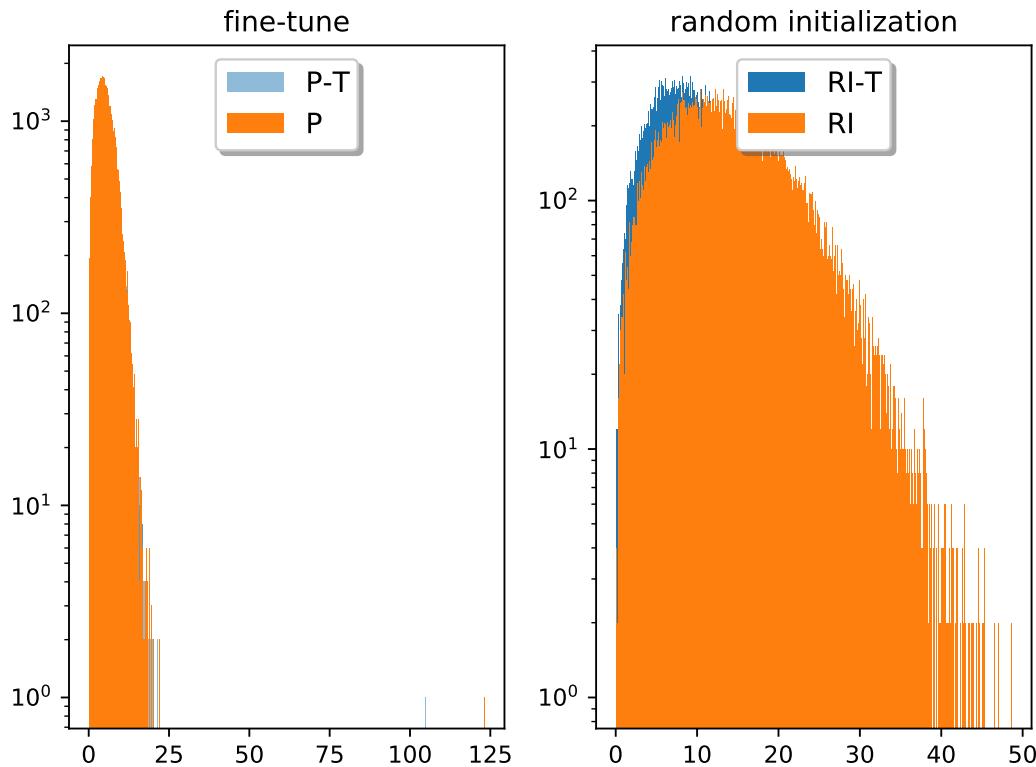


Figure 17: Spectrum Layer2.1 Conv1

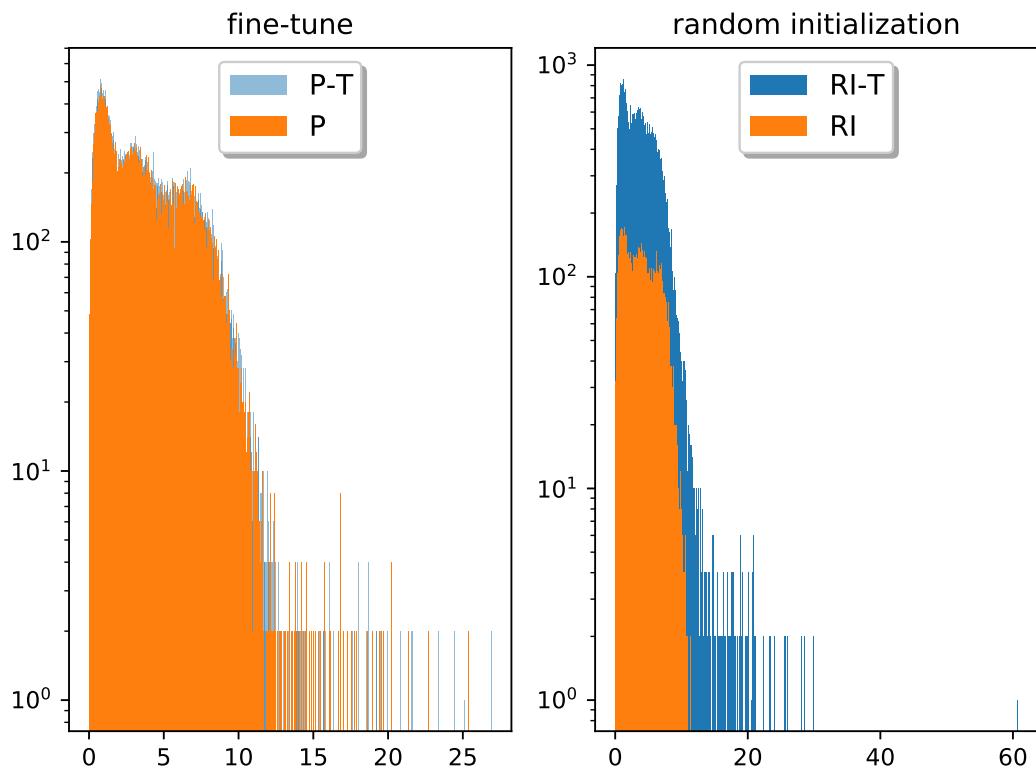


Figure 18: Spectrum Layer2.1 Conv2

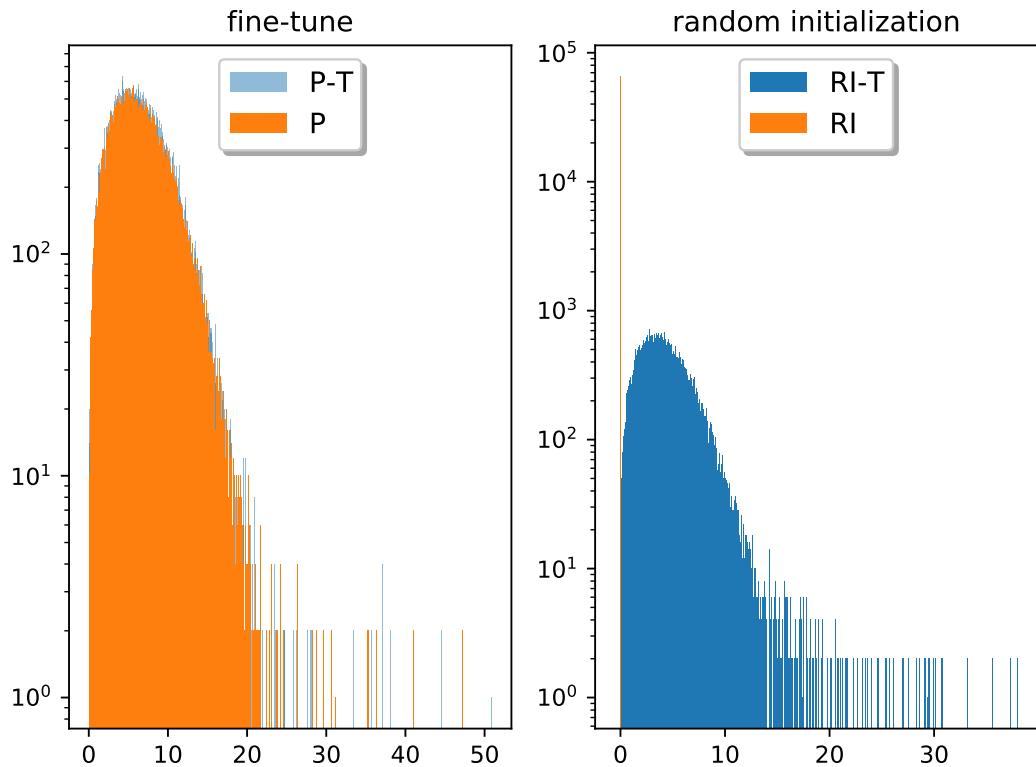


Figure 19: Spectrum Layer2.1 Conv3

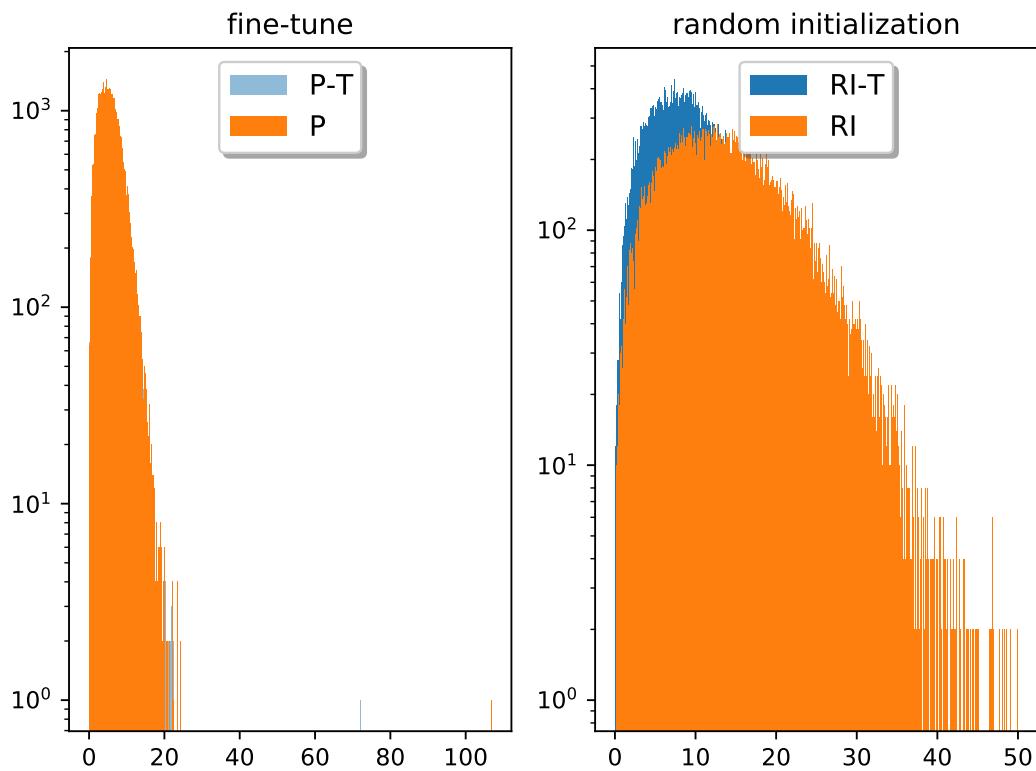


Figure 20: Spectrum Layer2.2 Conv1

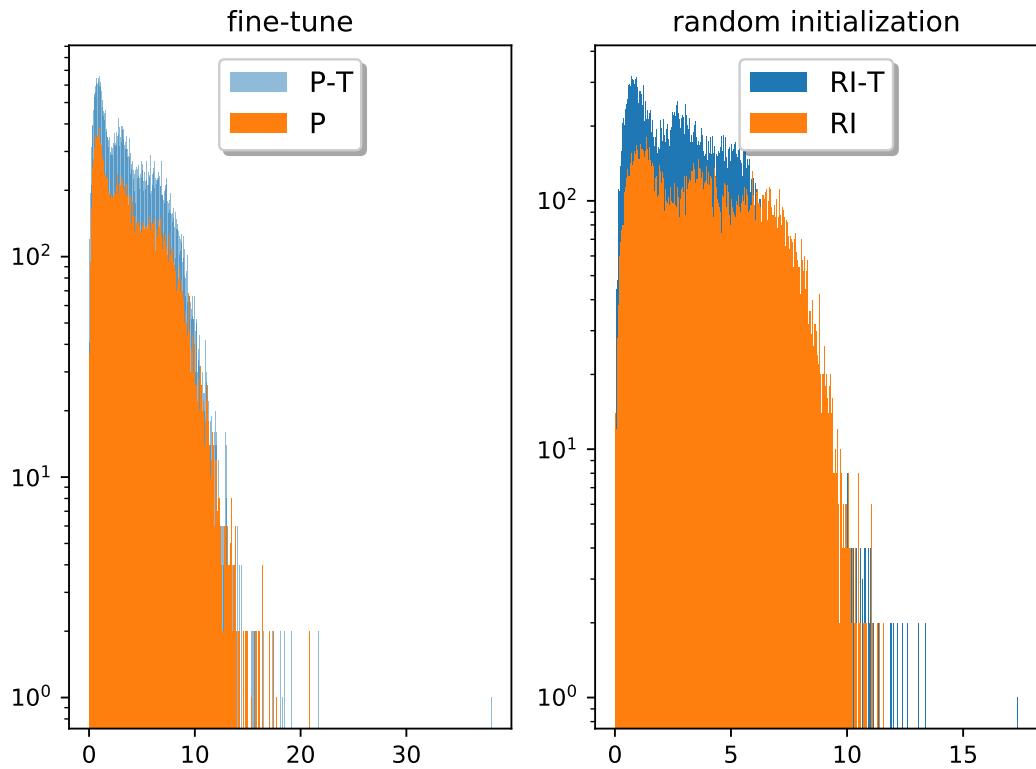


Figure 21: Spectrum Layer2.2 Conv2

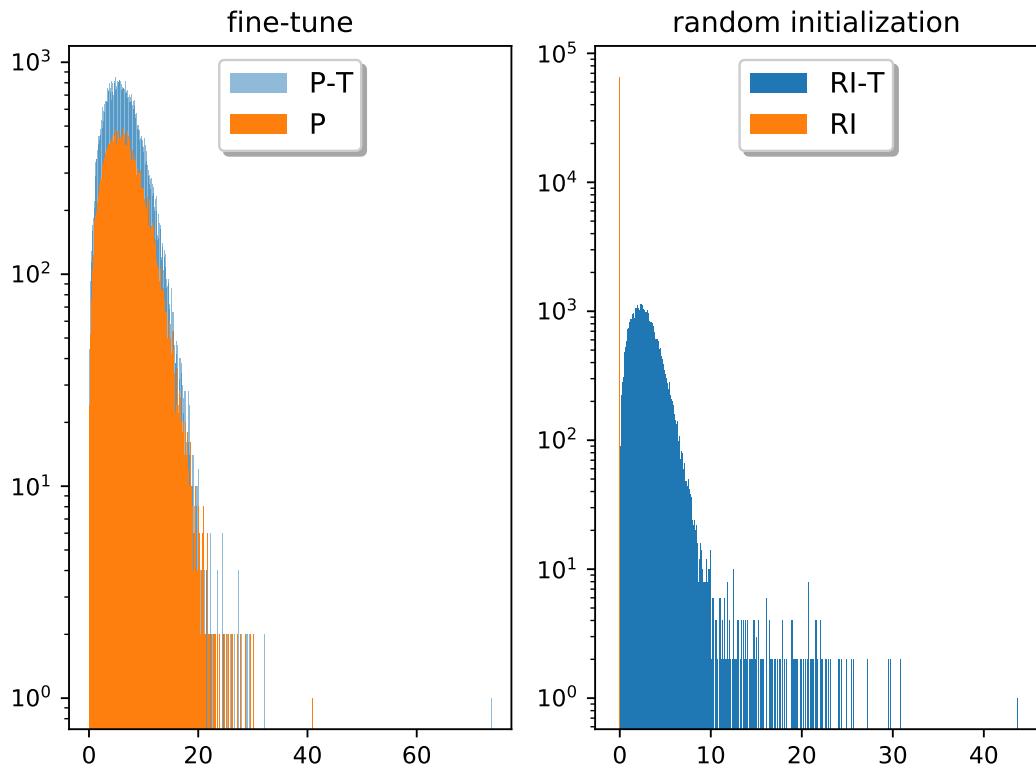


Figure 22: Spectrum Layer2.2 Conv3

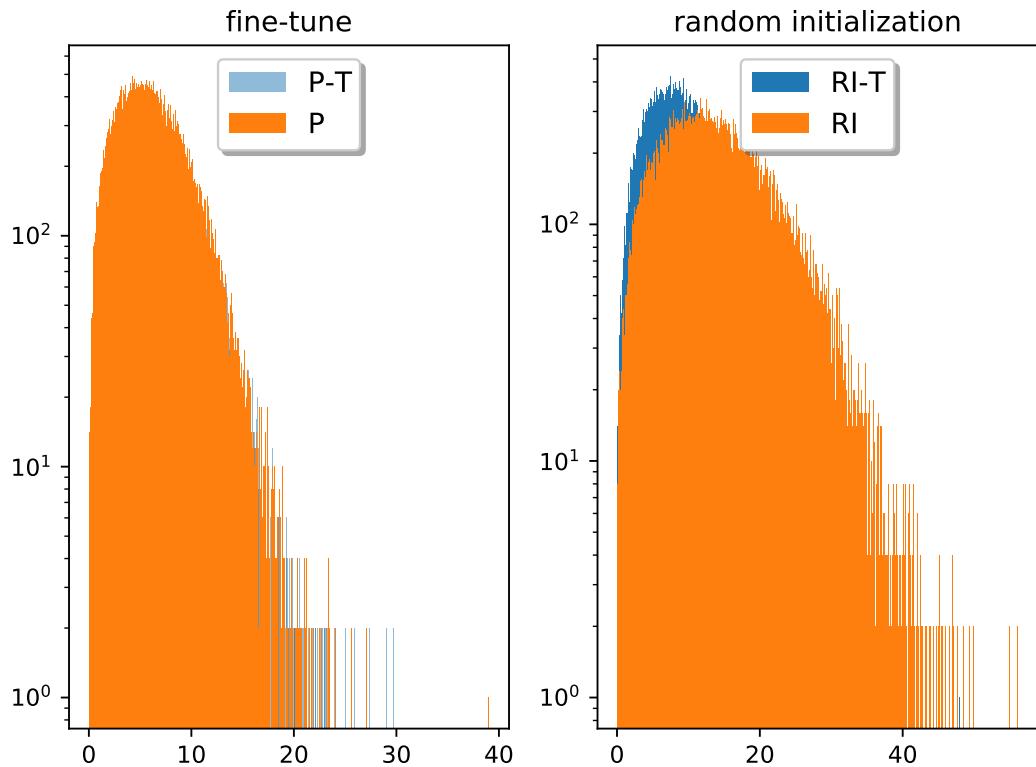


Figure 23: Spectrum Layer2.3 Conv1

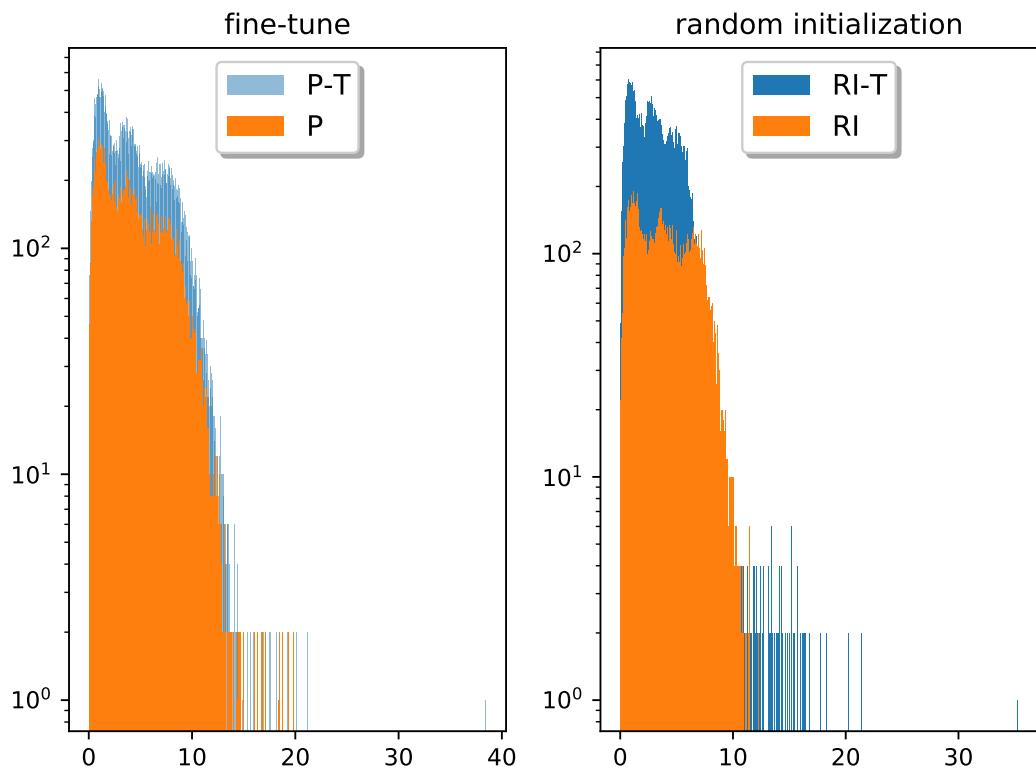


Figure 24: Spectrum Layer2.3 Conv2

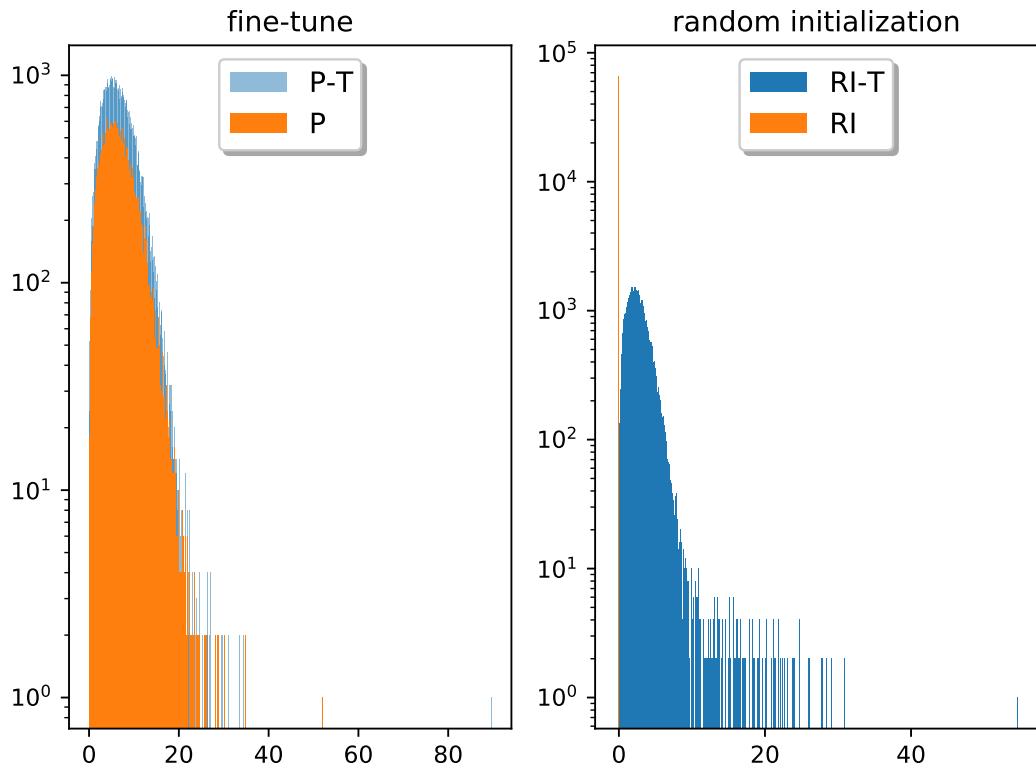


Figure 25: Spectrum Layer2.3 Conv3

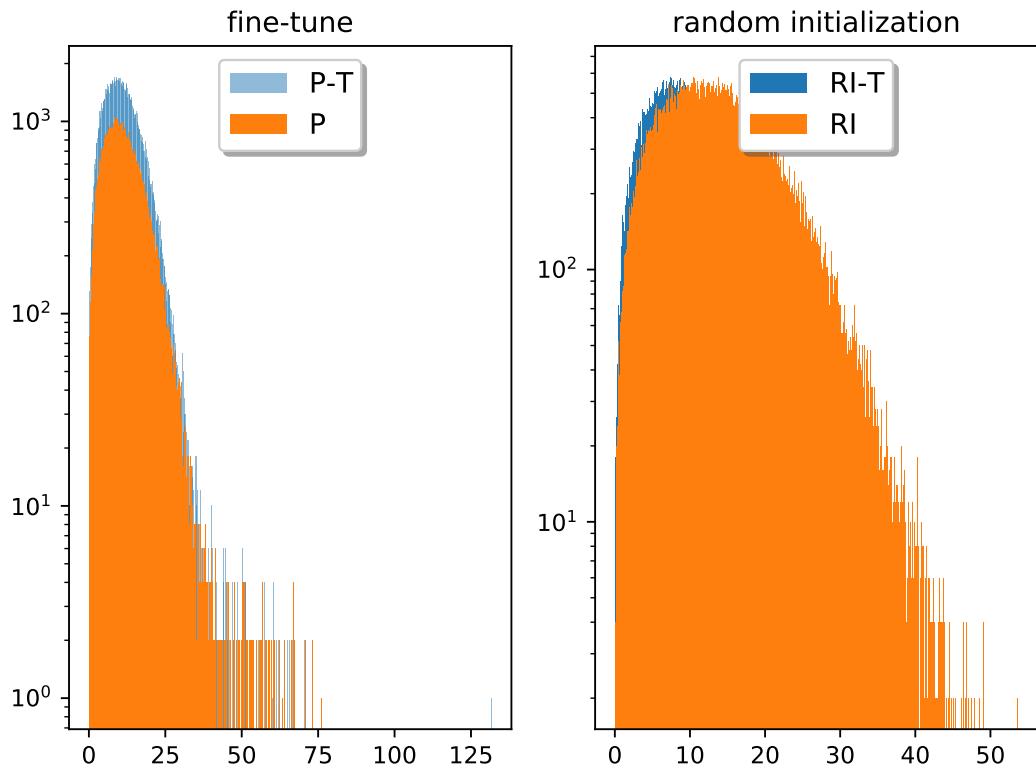


Figure 26: Spectrum Layer3.0 Conv1

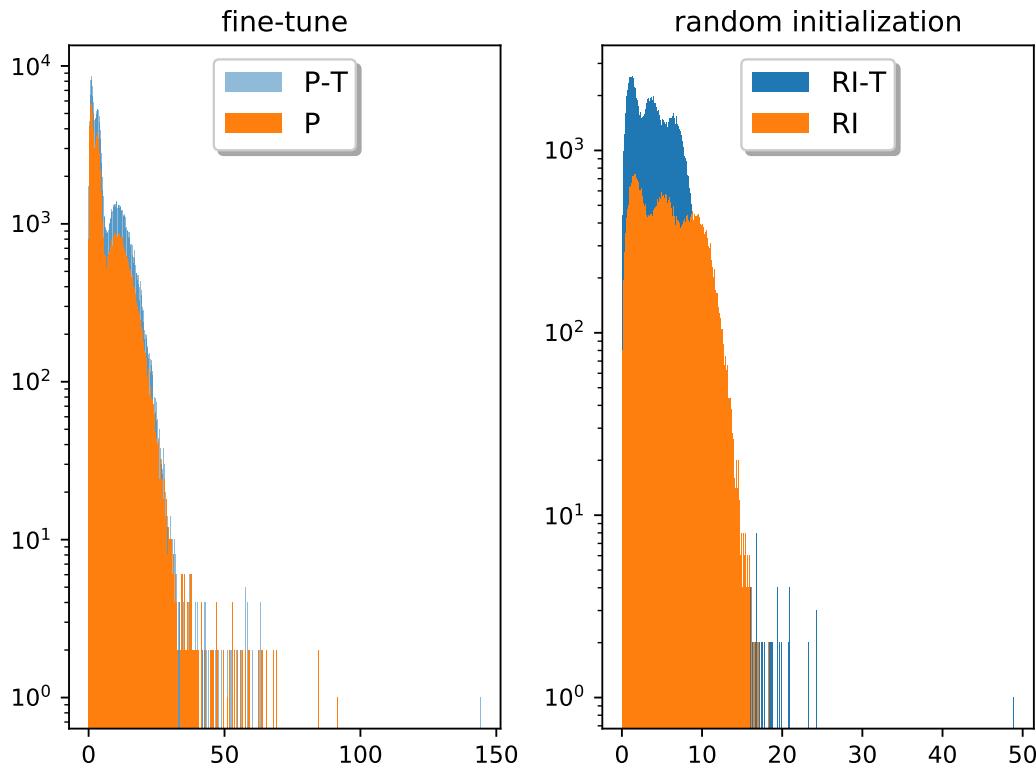


Figure 27: Spectrum Layer3.0 Conv2

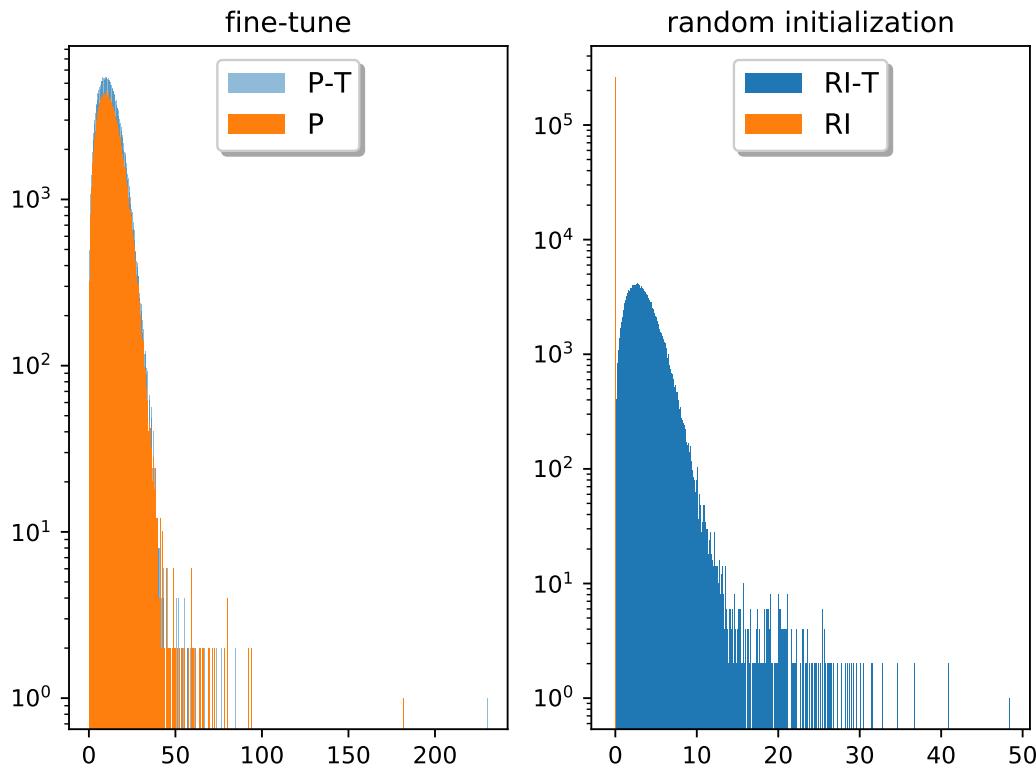


Figure 28: Spectrum Layer3.0 Conv3

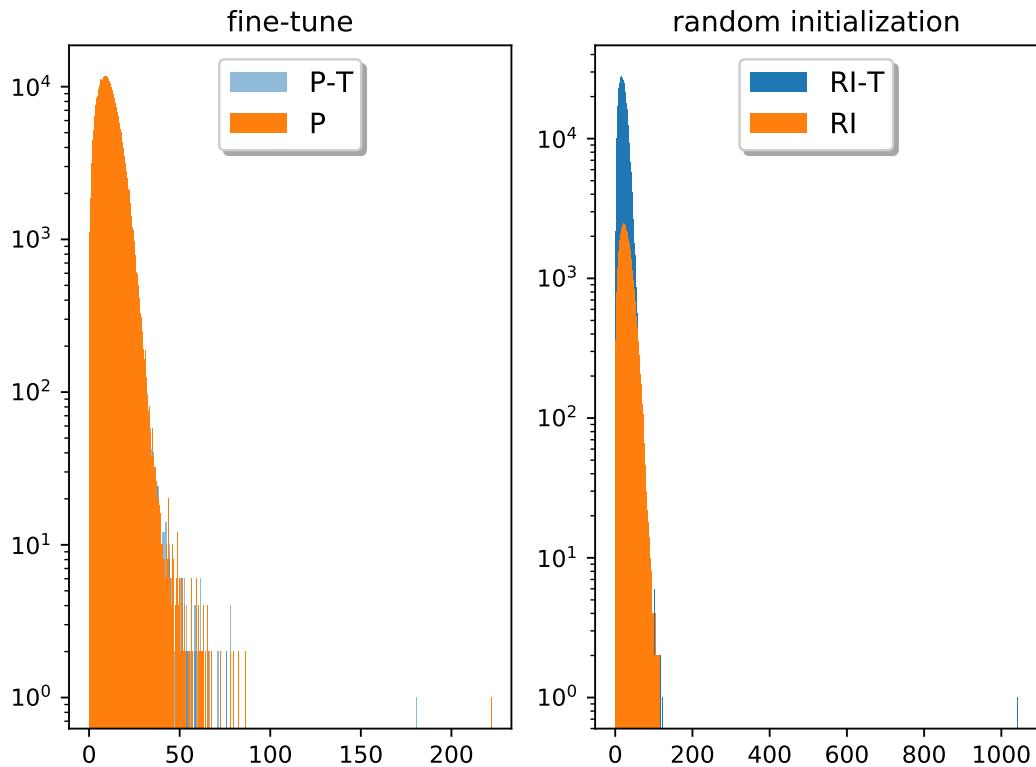


Figure 29: Spectrum Layer3.0 Downsample

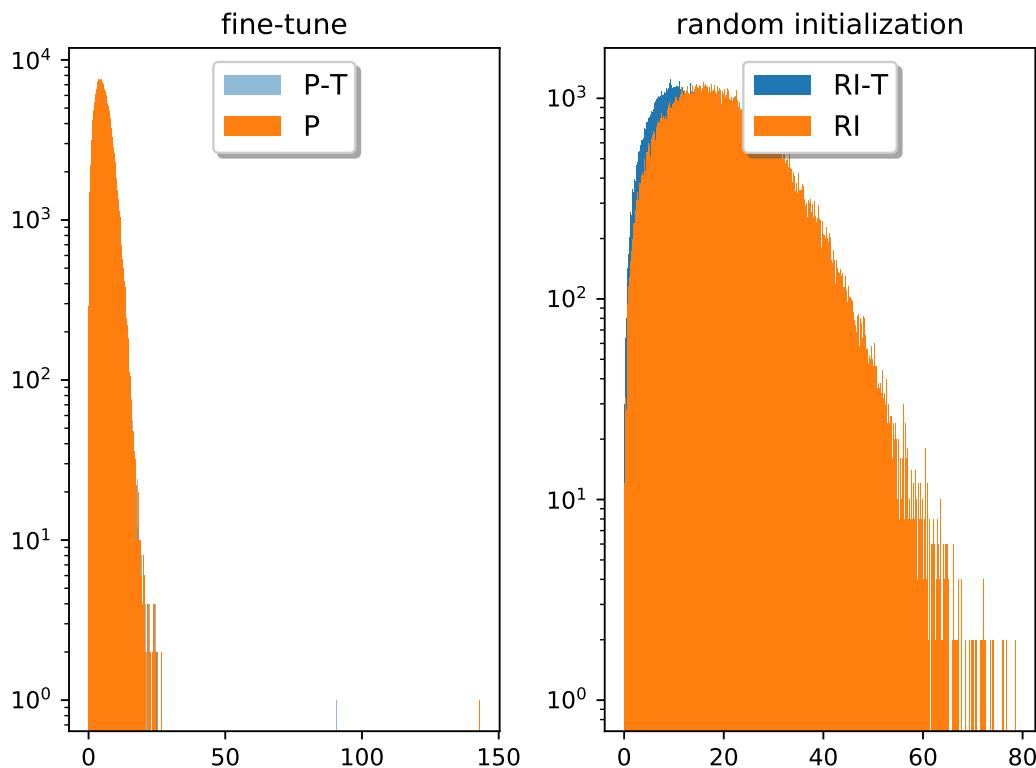


Figure 30: Spectrum Layer3.1 Conv1

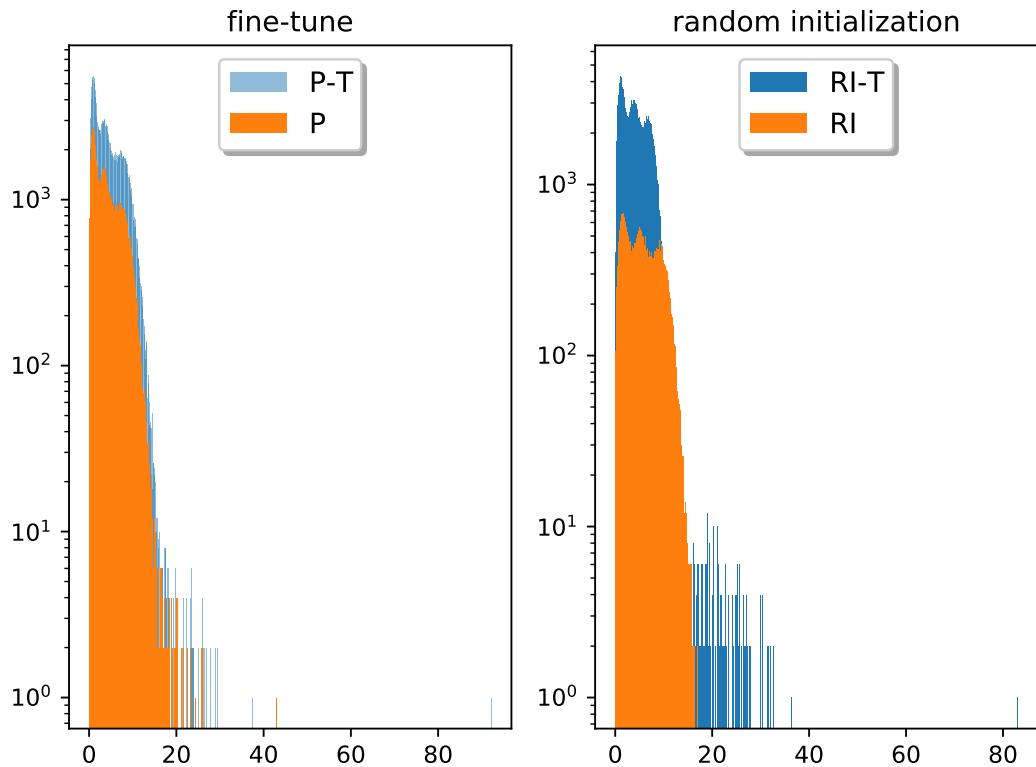


Figure 31: Spectrum Layer3.1 Conv2

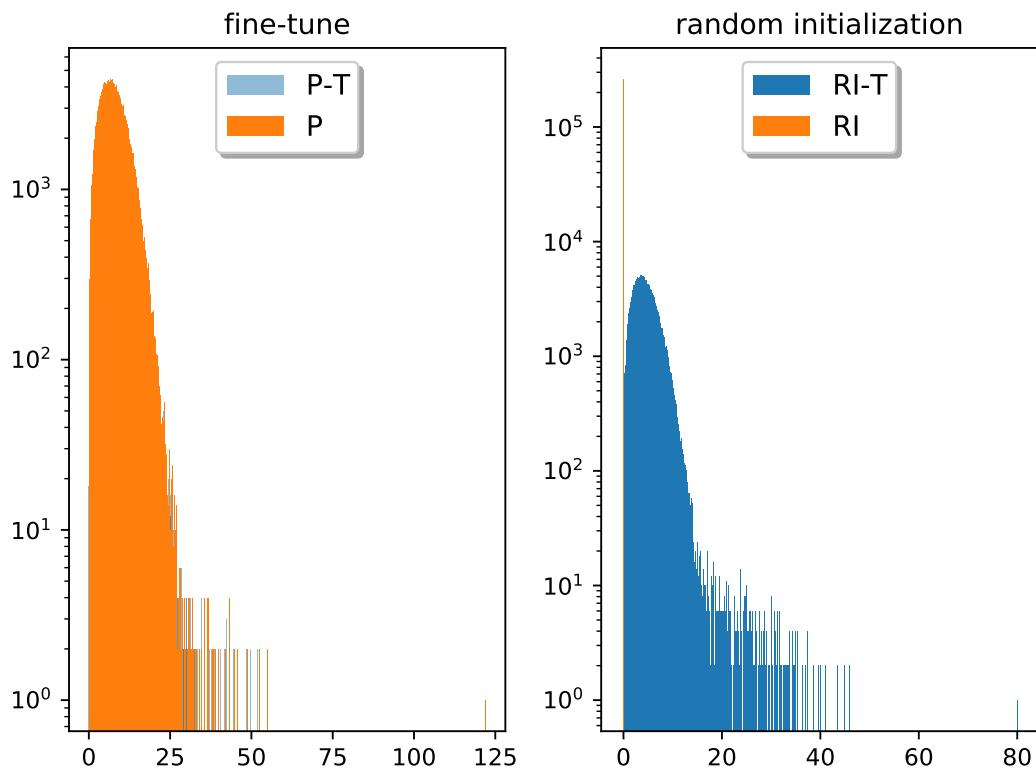


Figure 32: Spectrum Layer3.1 Conv3

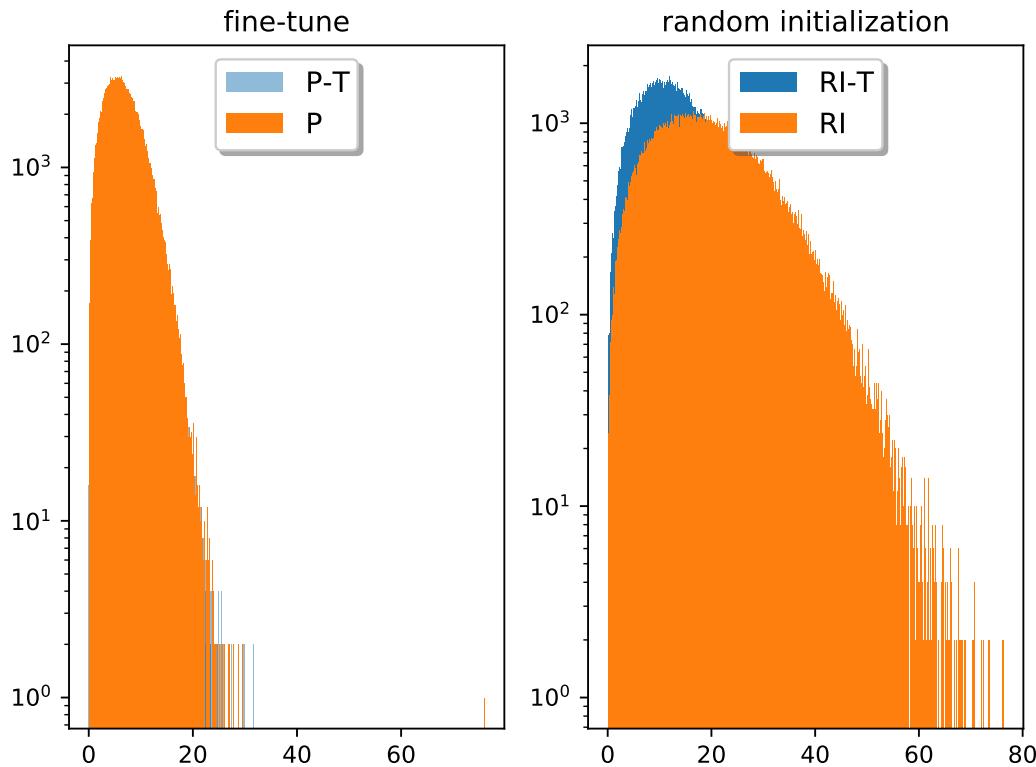


Figure 33: Spectrum Layer3.2 Conv1

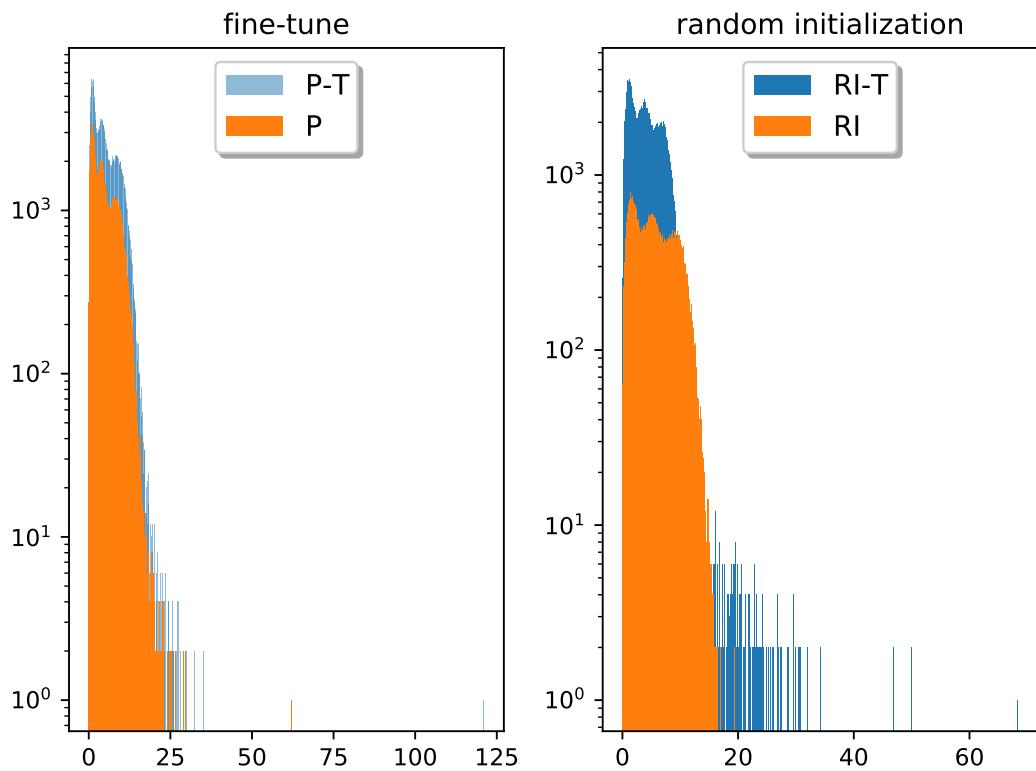


Figure 34: Spectrum Layer3.2 Conv2

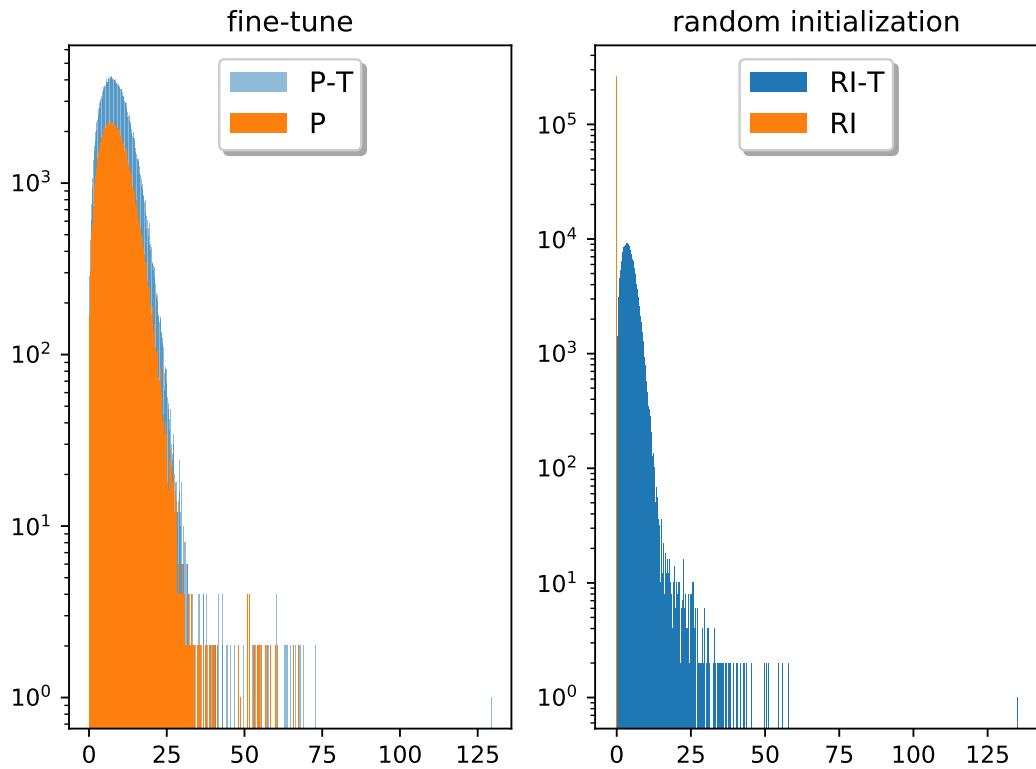


Figure 35: Spectrum Layer3.2 Conv3

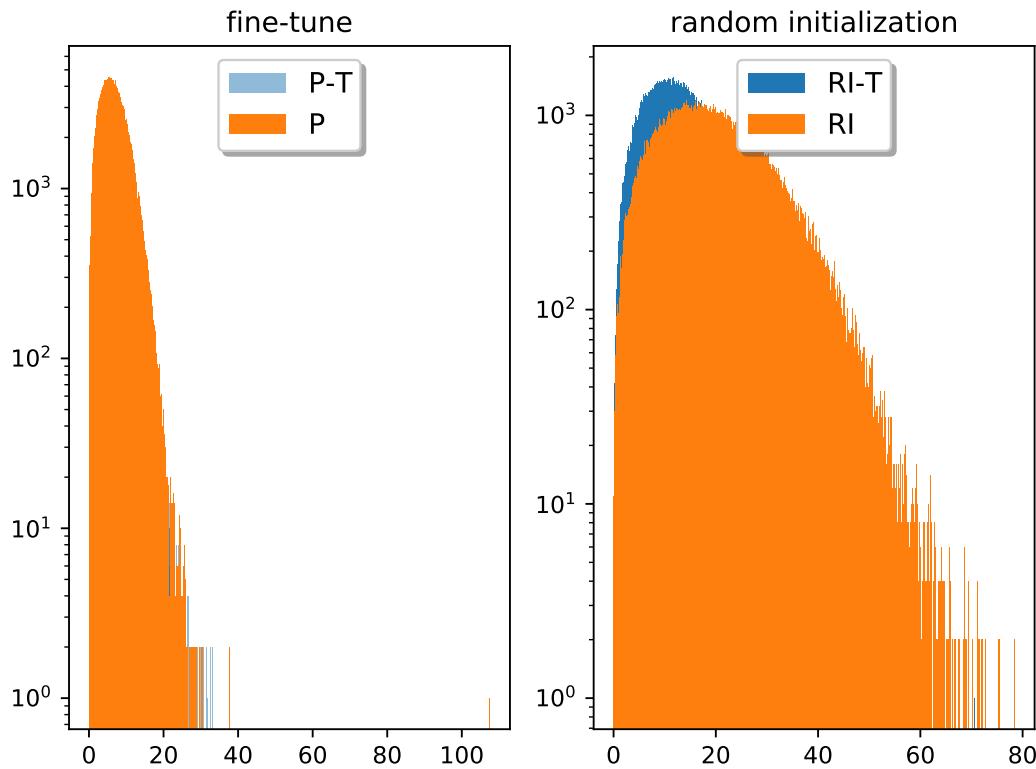


Figure 36: Spectrum Layer3.3 Conv1

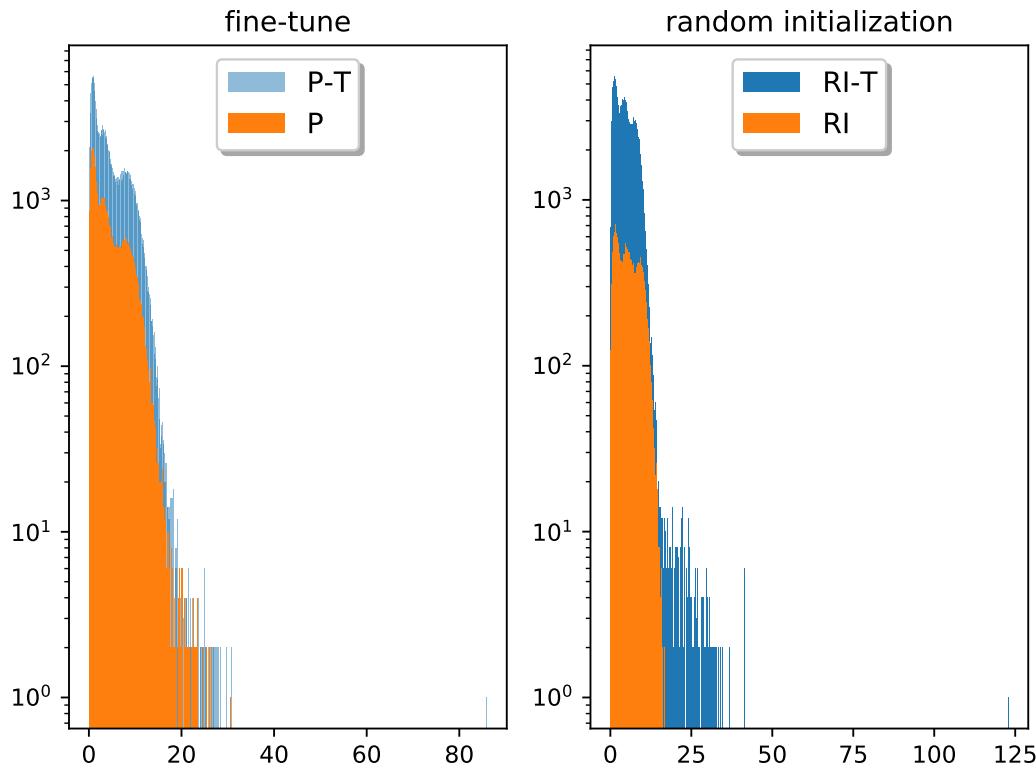


Figure 37: Spectrum Layer3.3 Conv2

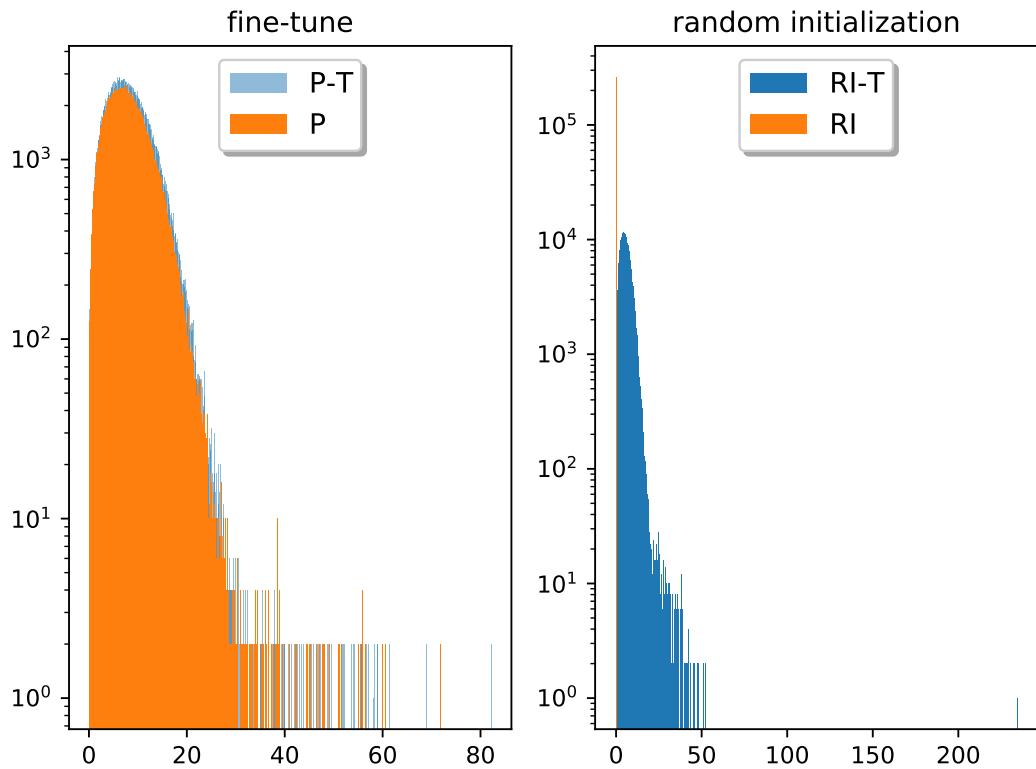


Figure 38: Spectrum Layer3.3 Conv3

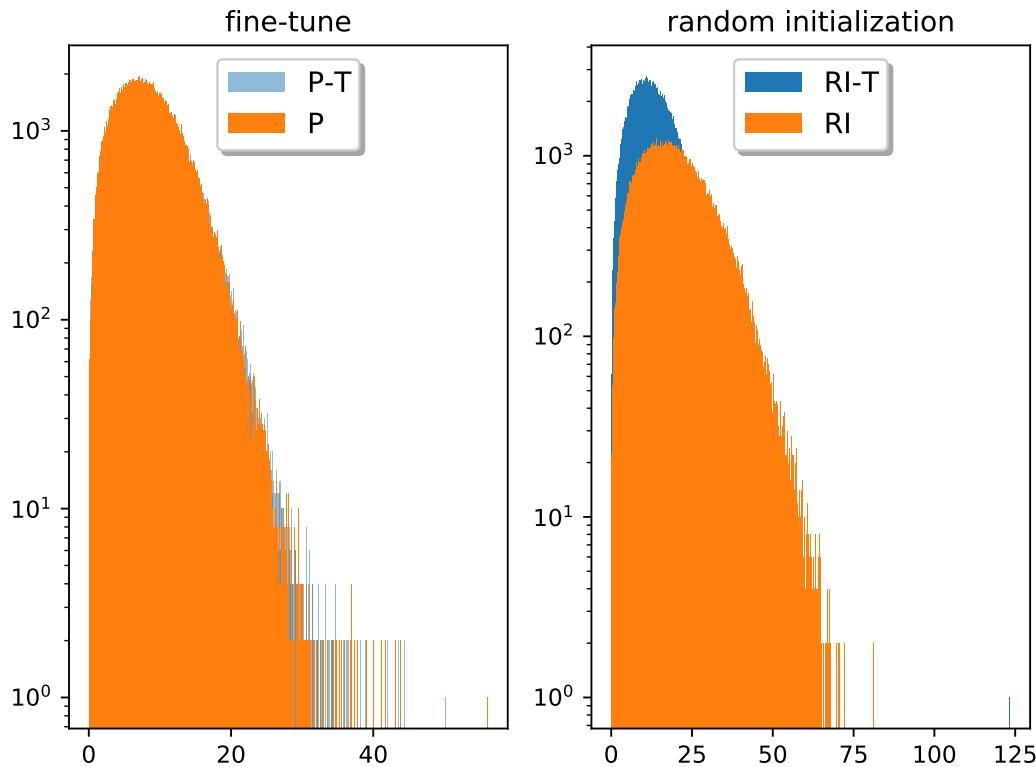


Figure 39: Spectrum Layer3.4 Conv1

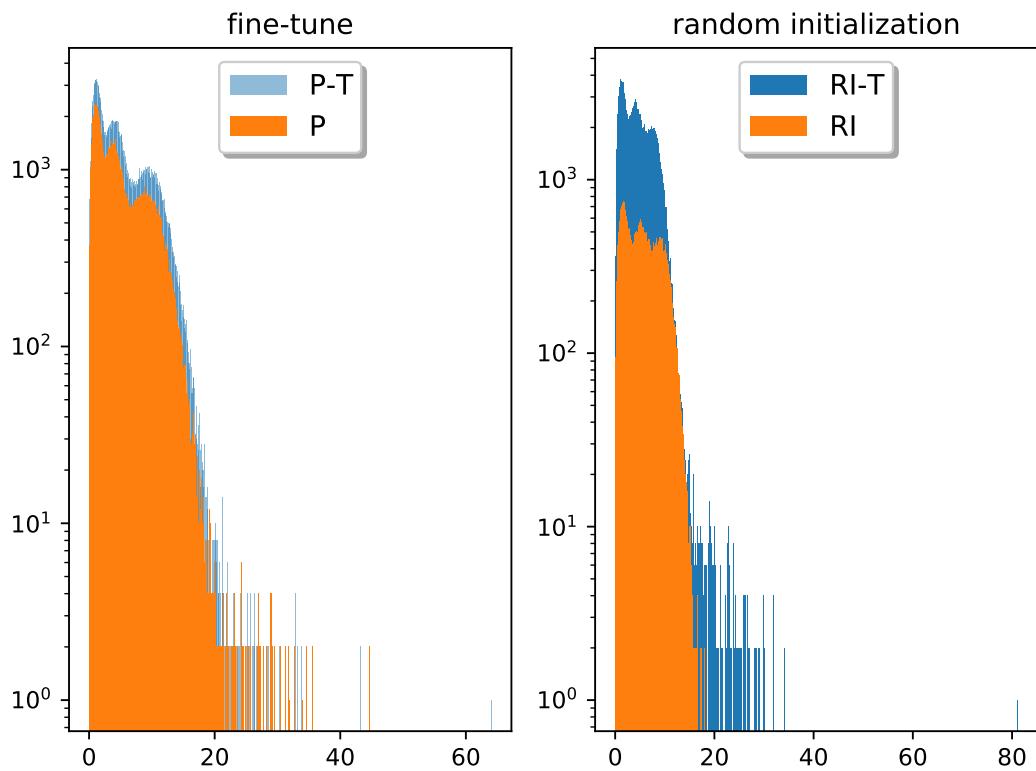


Figure 40: Spectrum Layer3.4 Conv2

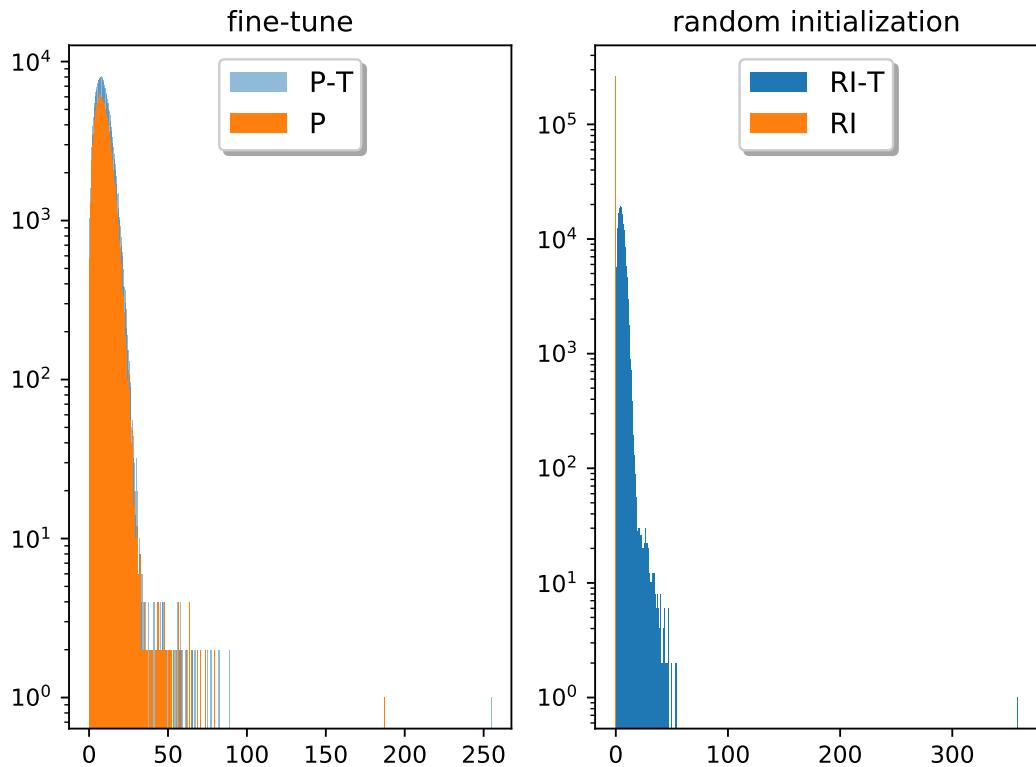


Figure 41: Spectrum Layer3.4 Conv3

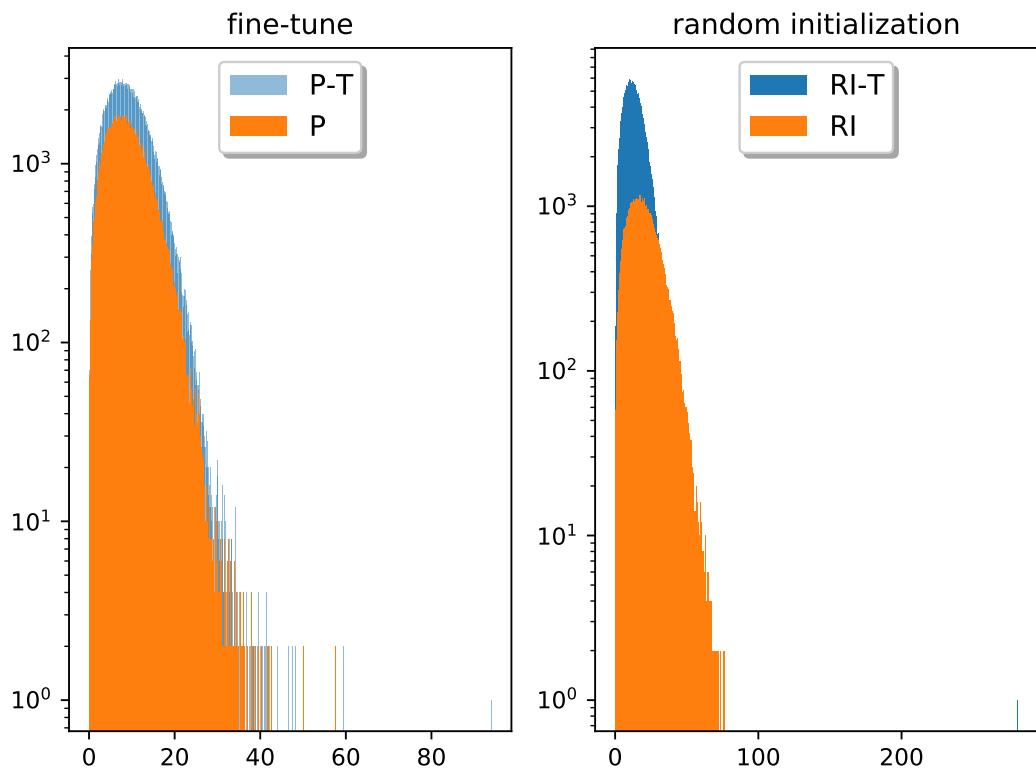


Figure 42: Spectrum Layer3.5 Conv1

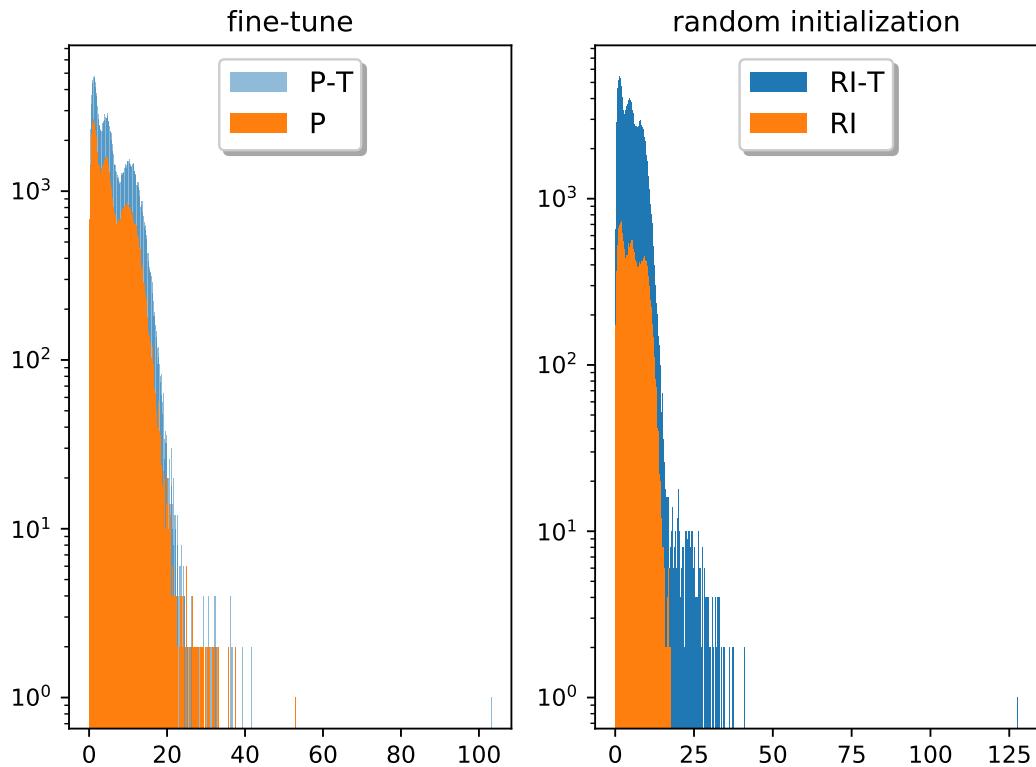


Figure 43: Spectrum Layer3.5 Conv2

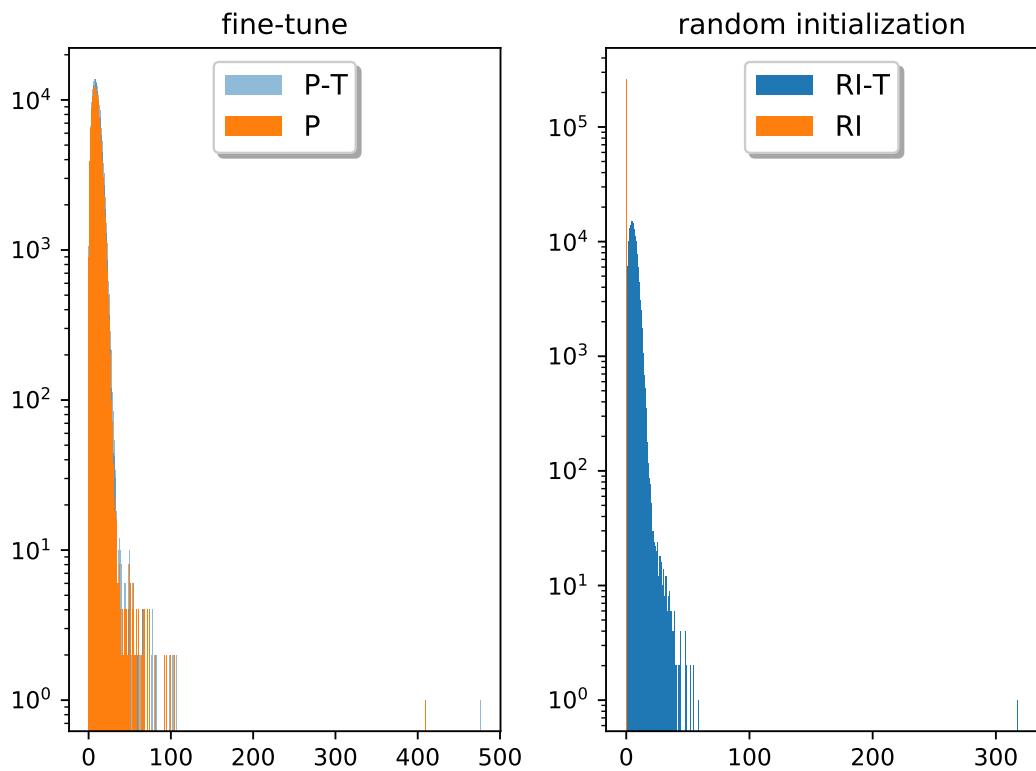


Figure 44: Spectrum Layer3.5 Conv3

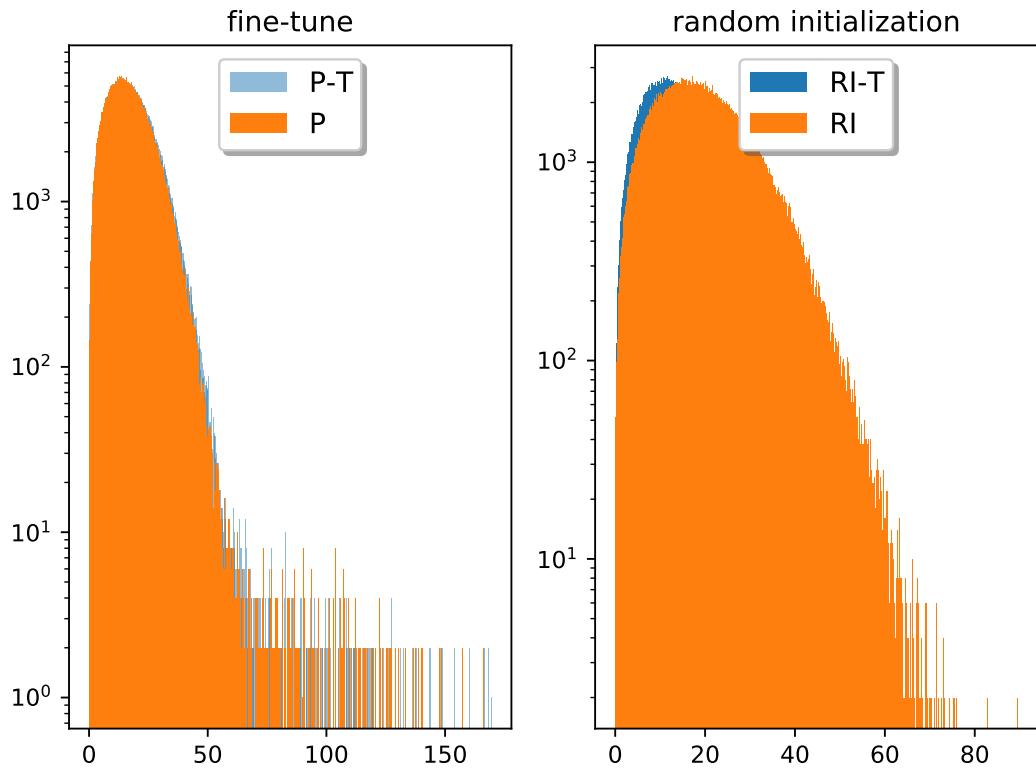


Figure 45: Spectrum Layer4.0 Conv1

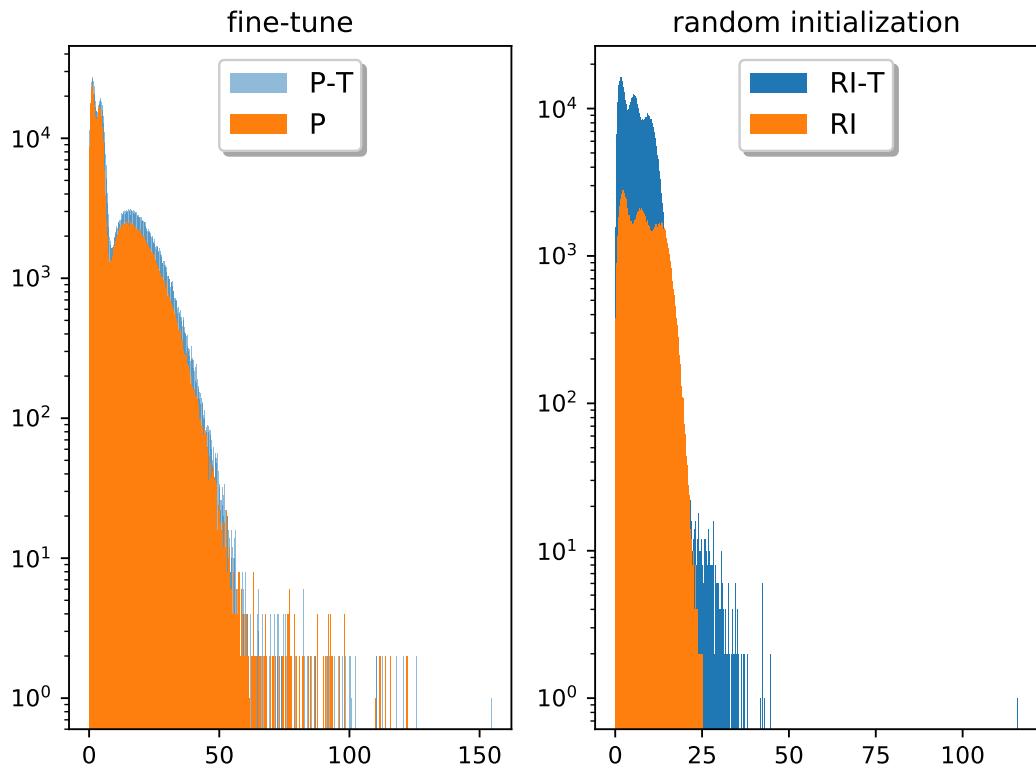


Figure 46: Spectrum Layer4.0 Conv2

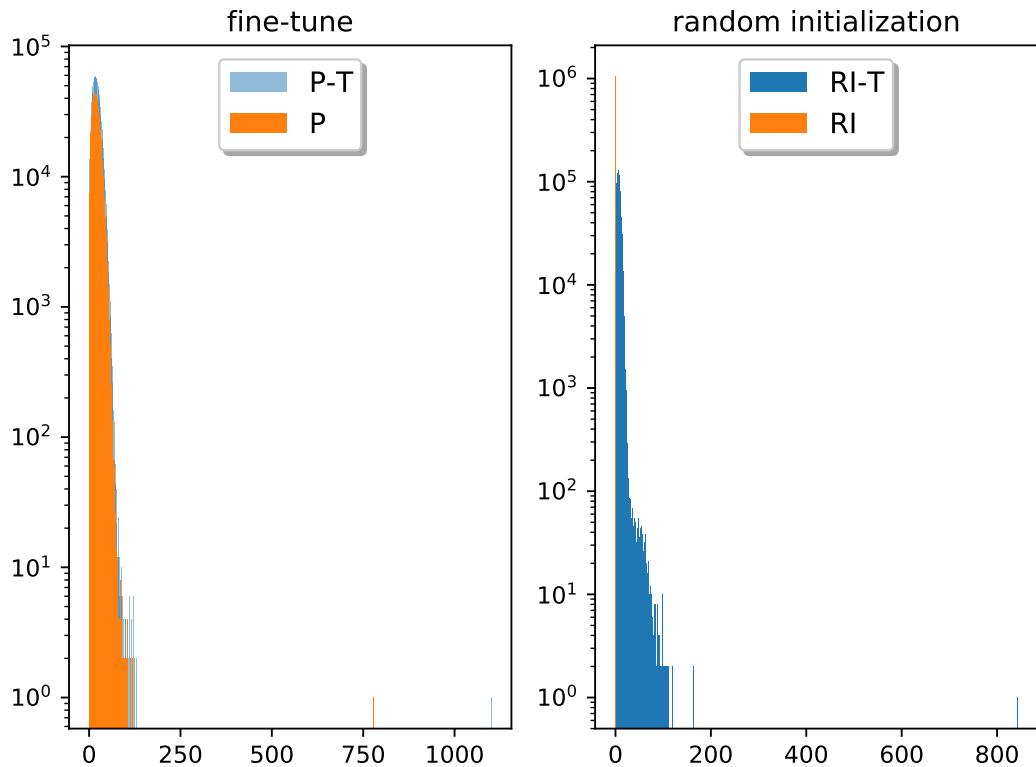


Figure 47: Spectrum Layer4.0 Conv3

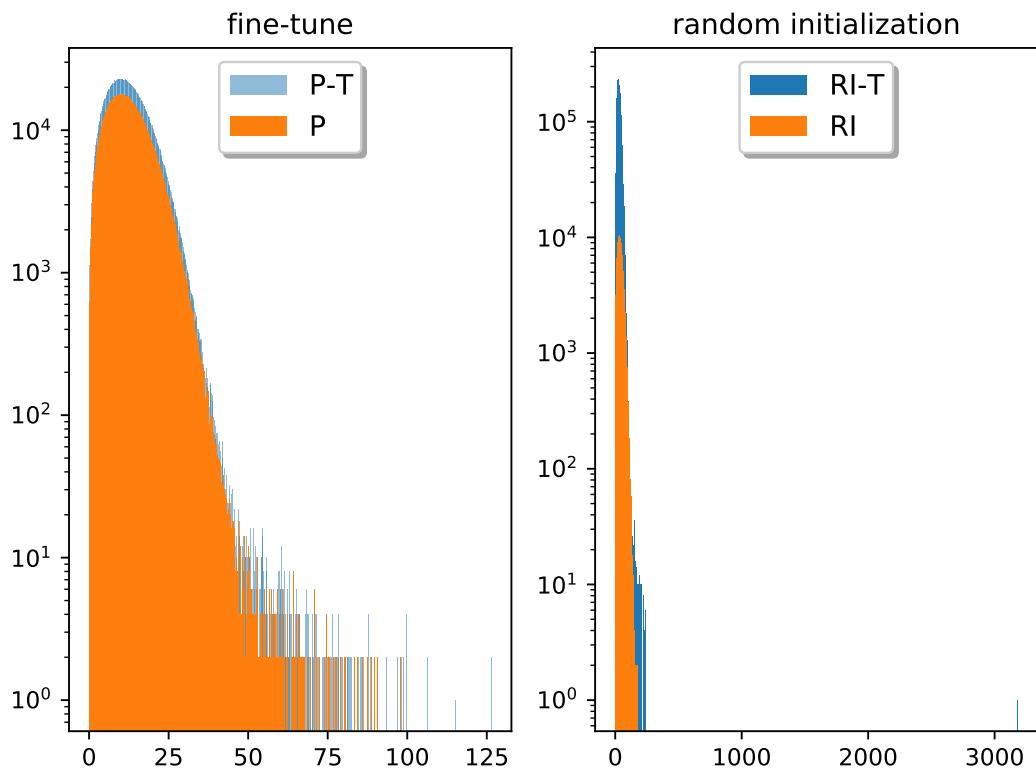


Figure 48: Spectrum Layer4.0 Downsample

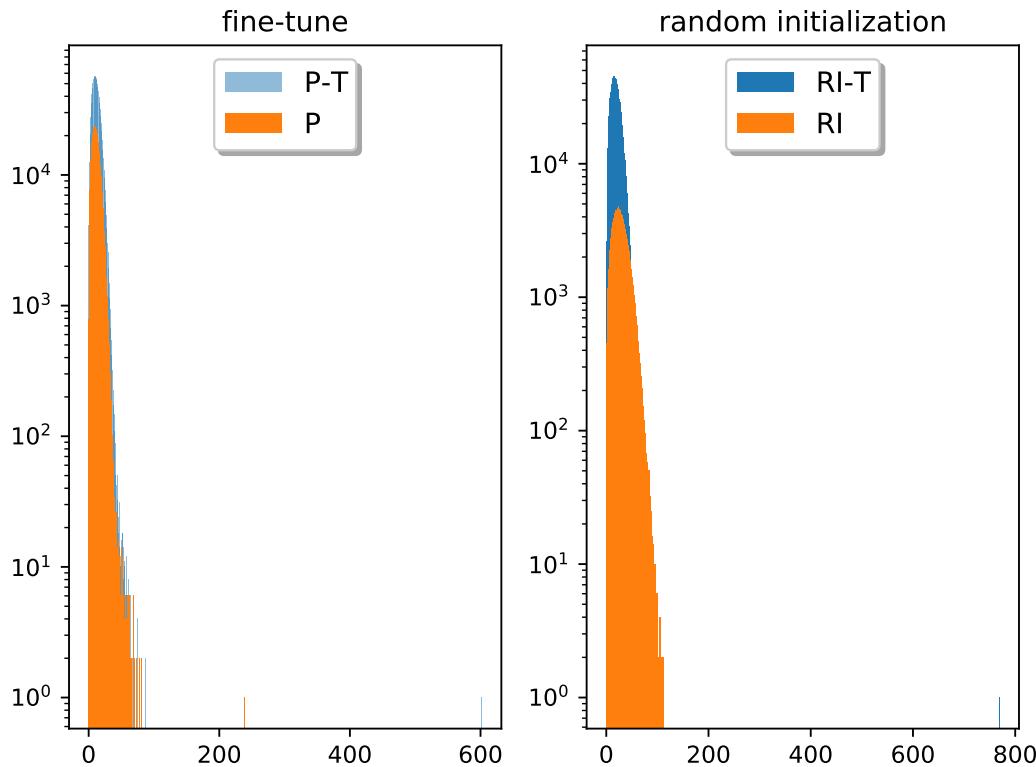


Figure 49: Spectrum Layer4.1 Conv1

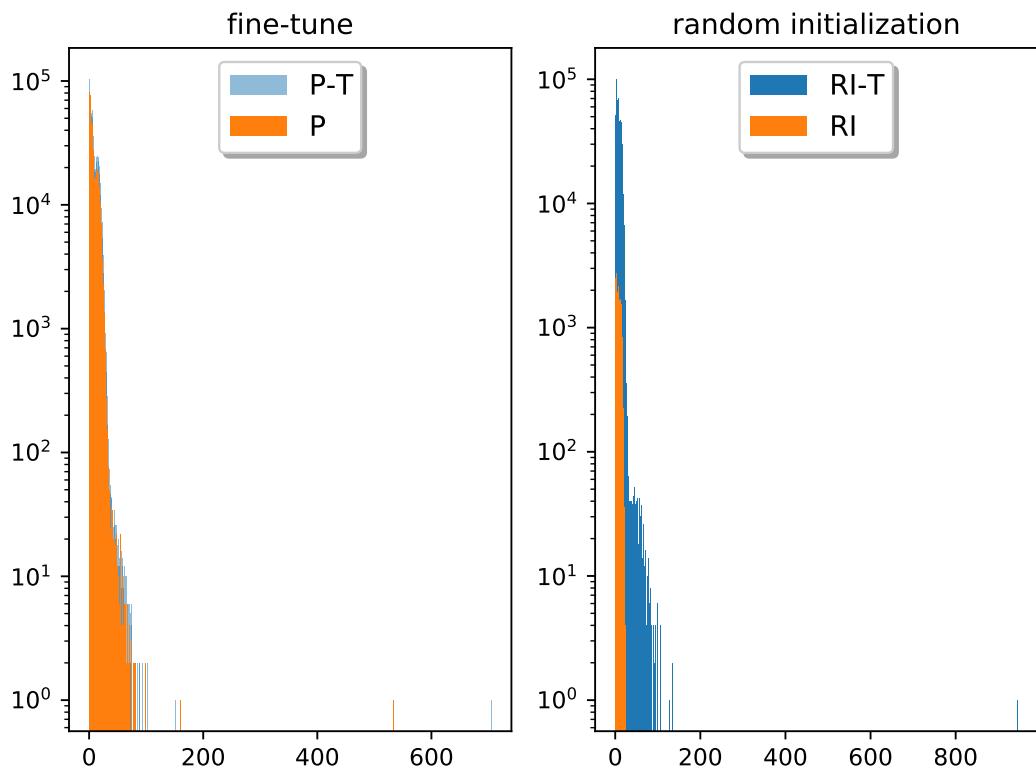


Figure 50: Spectrum Layer4.1 Conv2

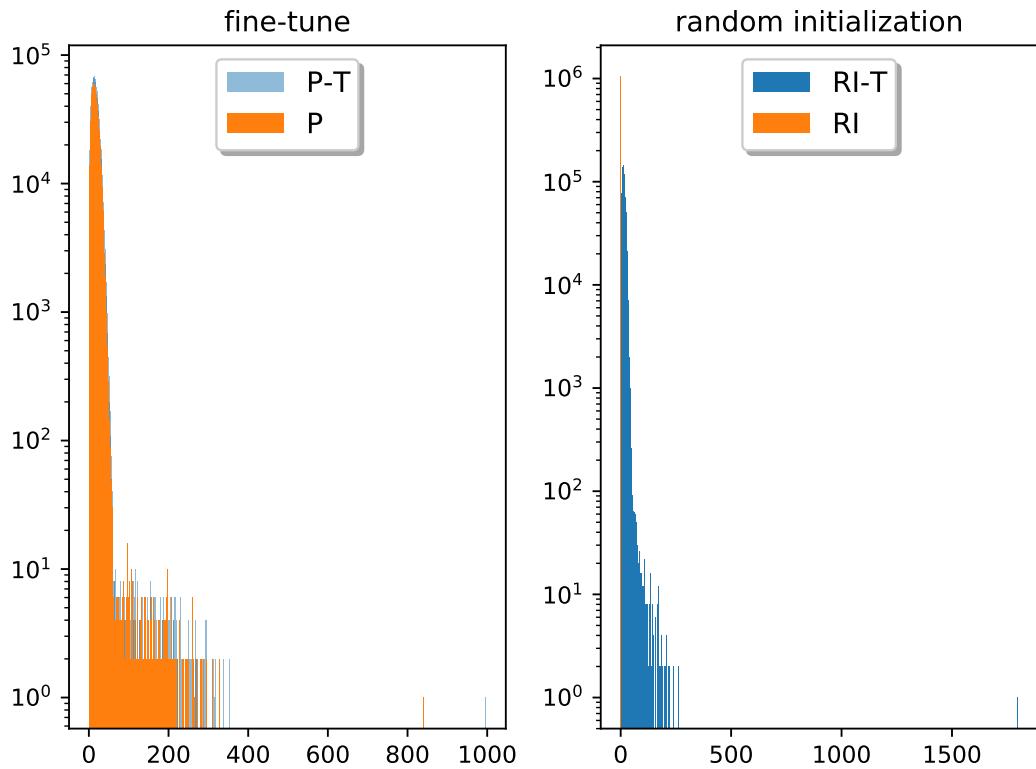


Figure 51: Spectrum Layer4.1 Conv3

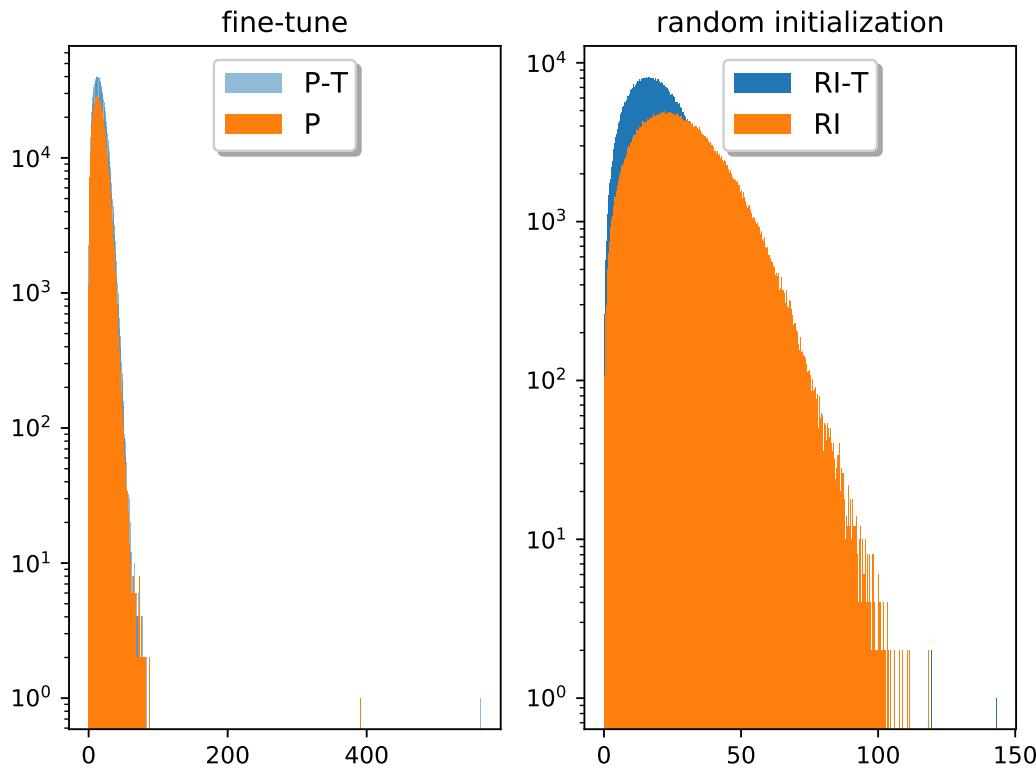


Figure 52: Spectrum Layer4.2 Conv1

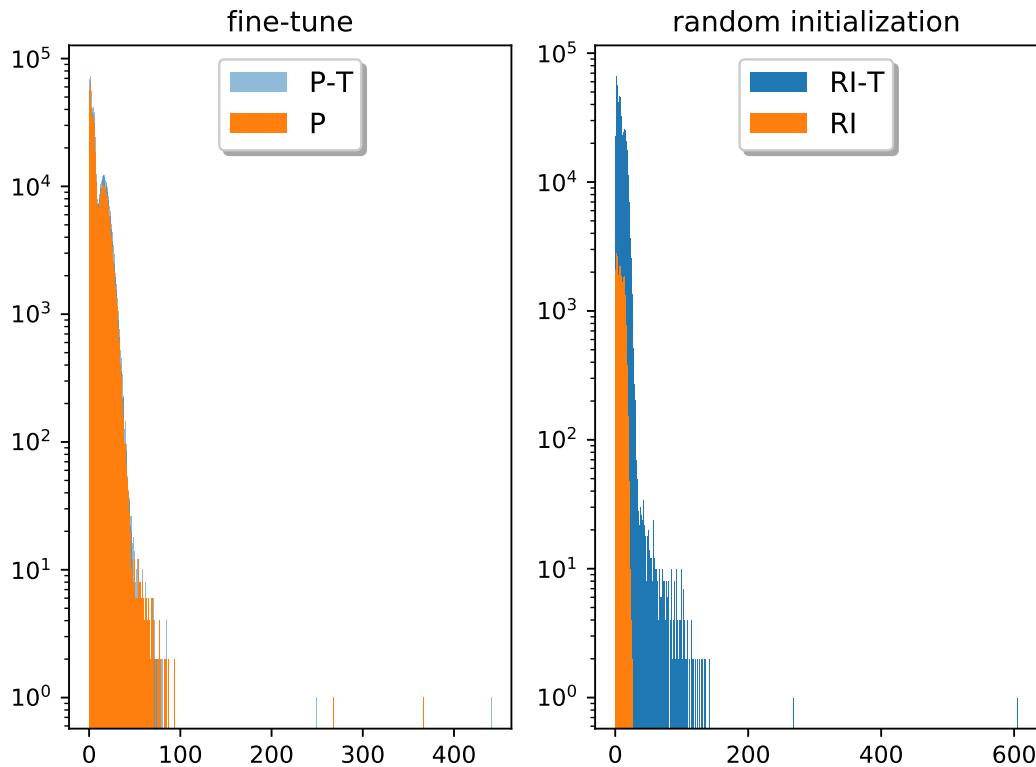


Figure 53: Spectrum Layer4.2 Conv2

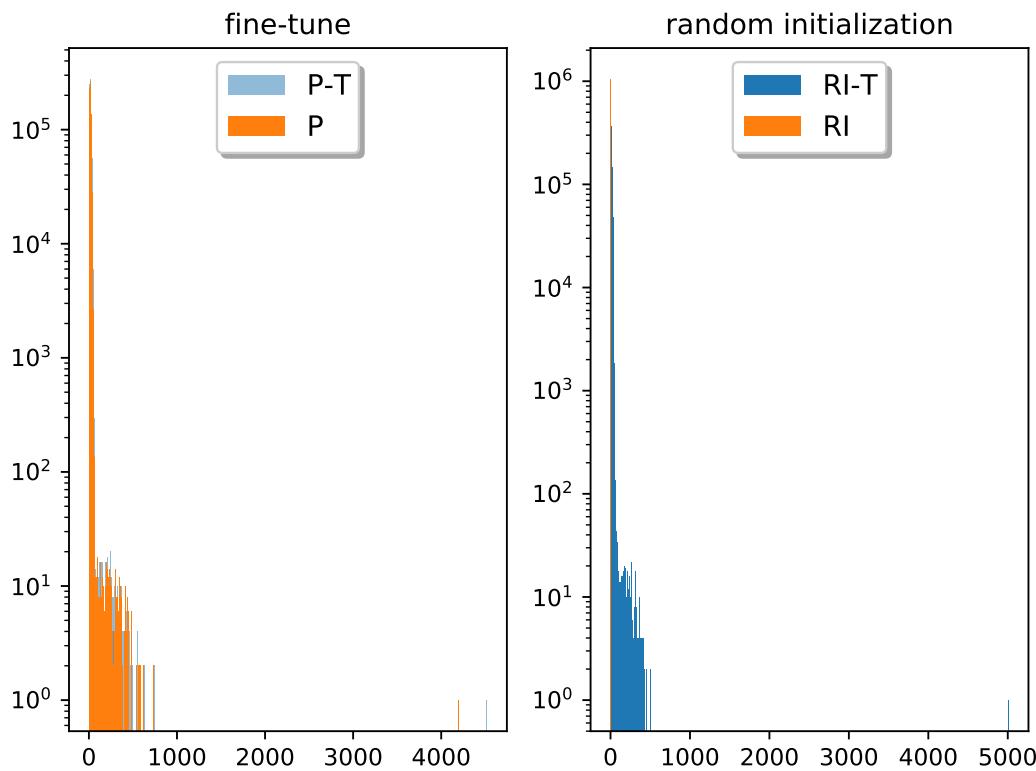


Figure 54: Spectrum Layer4.2 Conv3