Status TSLUT (3/5 Layers) and Training with Multilayers

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Modify the TSF (3 of 5 Layers)

Goal: create a new TSLUT, which finds TS with only 3 of 5 wire layers active, where at least one of the hits was a first or second priority hit. Before we can determine the correct L/R info for this new TSLUT, we need to bootstrap it first:

1. make TSLUT with “Undecided” result for all new valid TS ✅
2. Run the TSF with the new TSLUT and obtain the RecoTable with the true L/R information ⛔
3. Determine the correct L/R decisions for all valid TS patterns and save it ⛔

Trainings on E26 Dataset

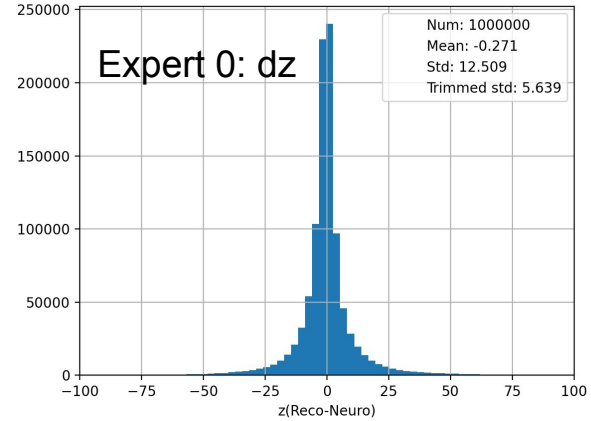
Can we improve our Neurotrigger performance by just increasing the network parameters?

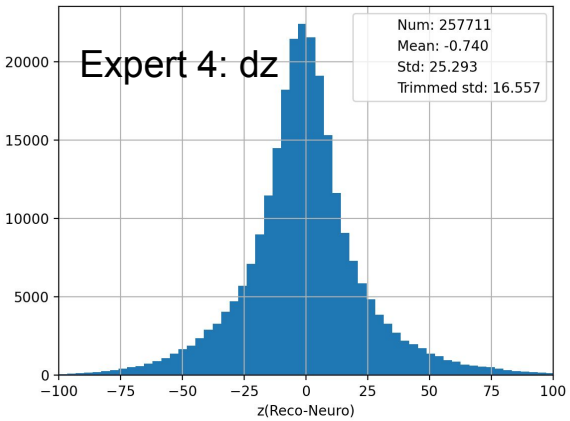
- Network 1: Original network layout with 81 nodes in 1 hidden layer
  (27+1)*81+(81+1)*2=2432 free parameters

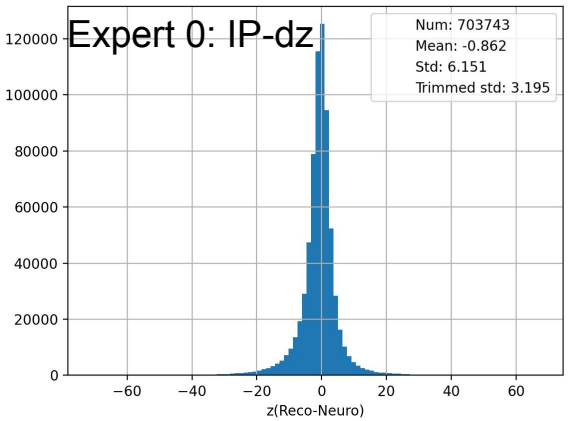
- Network 2: New Network with 3 x 300 nodes in 3 hidden layers
  (27+1)*300+(300+1)*300+(300+1)*300+(300+1)*2=189602 free parameters

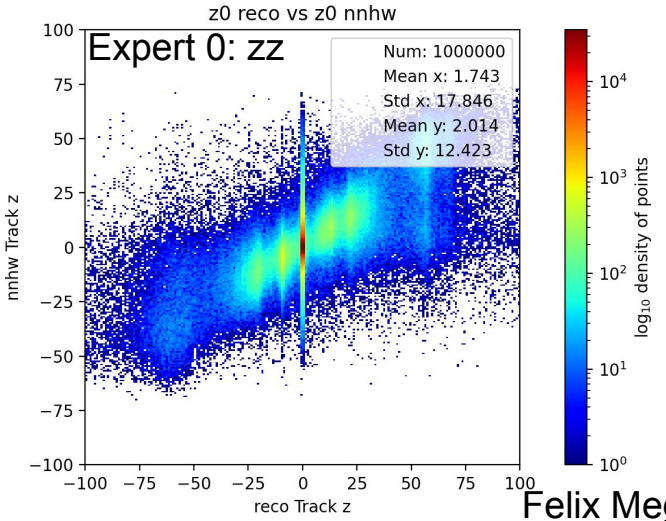
- Network 3: New Network with 6320 nodes in 1 hidden layer
  (27+1)*6320+(6320+1)*2= 189602 free parameters, same number as for network 2

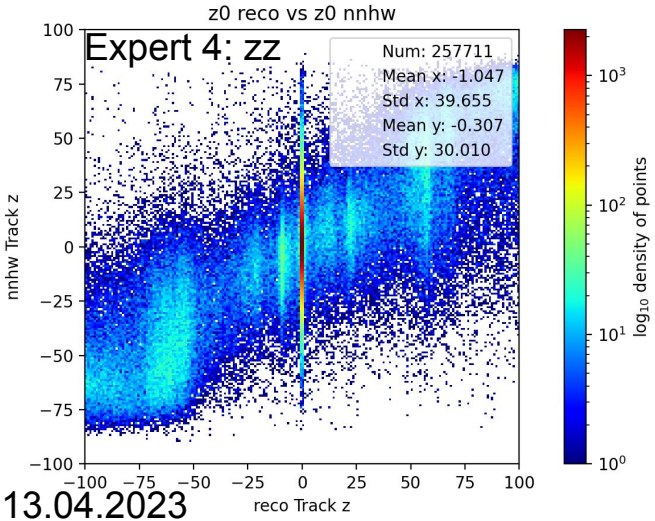
Network 1: 1 x 81



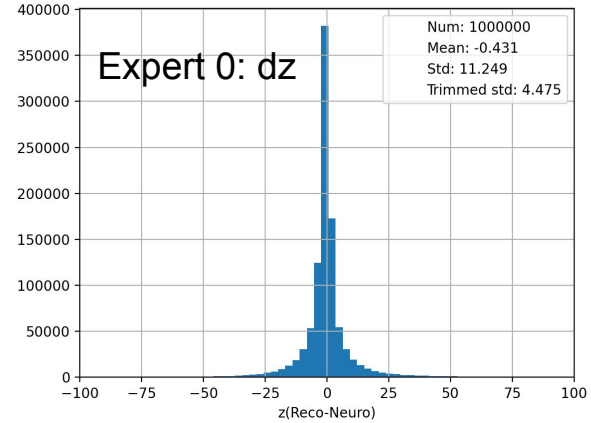


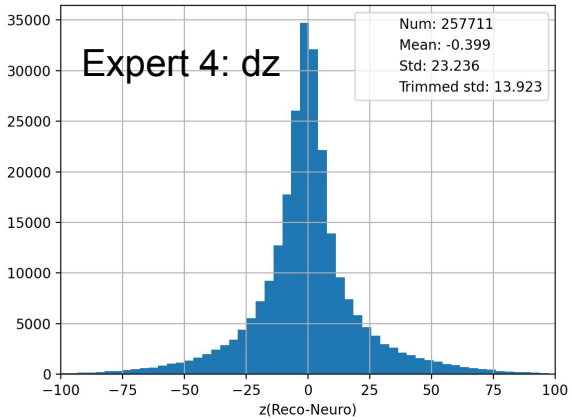


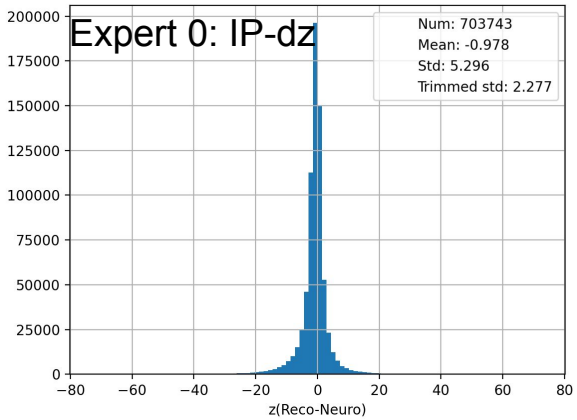


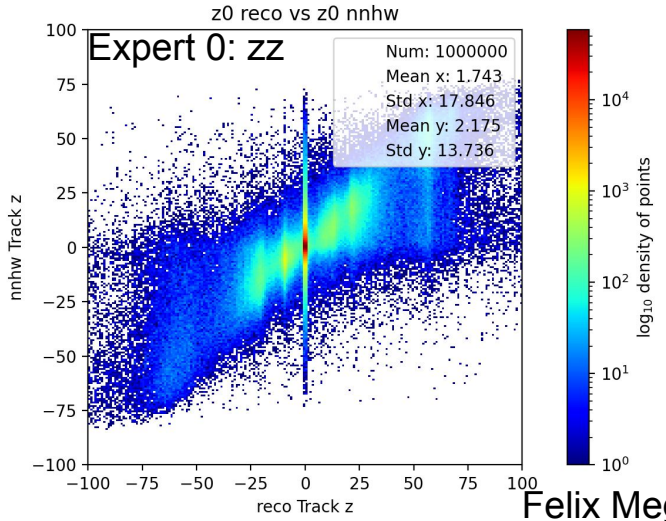


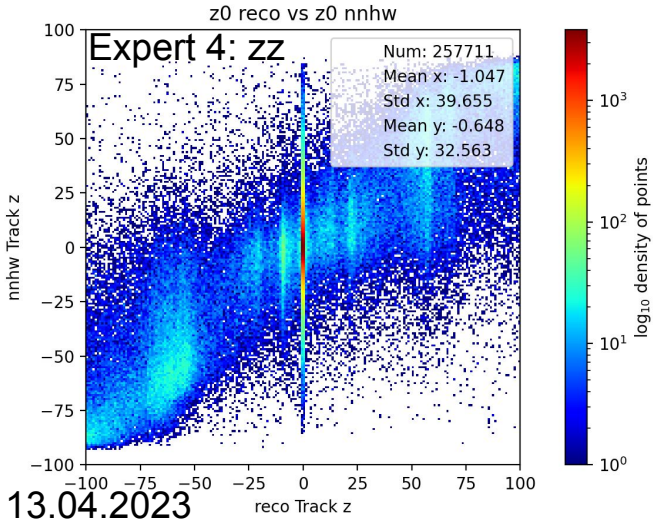
Network 2: 3 x 300



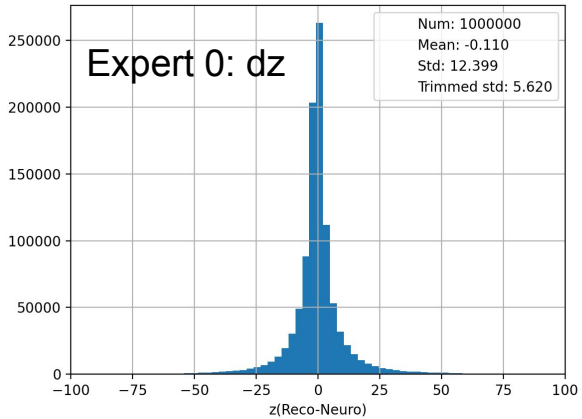


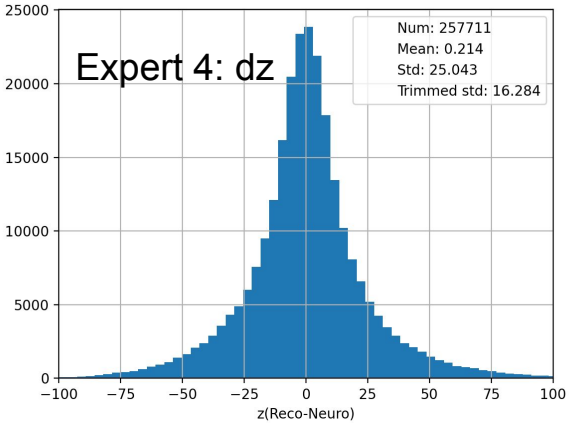


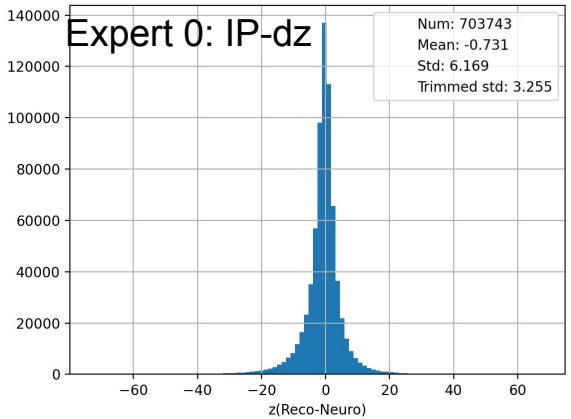


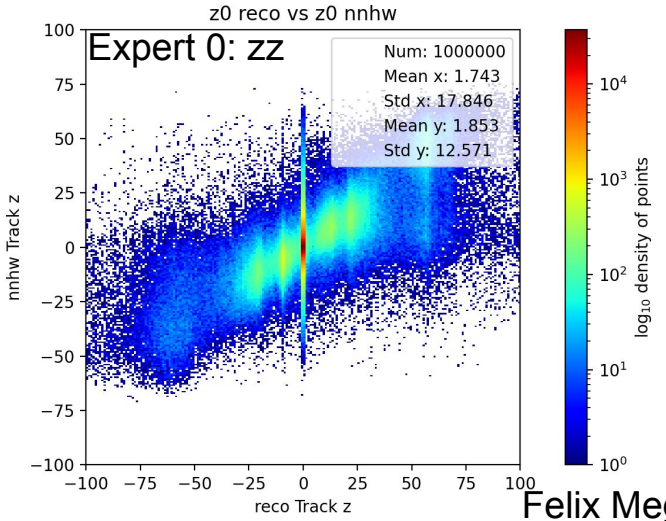


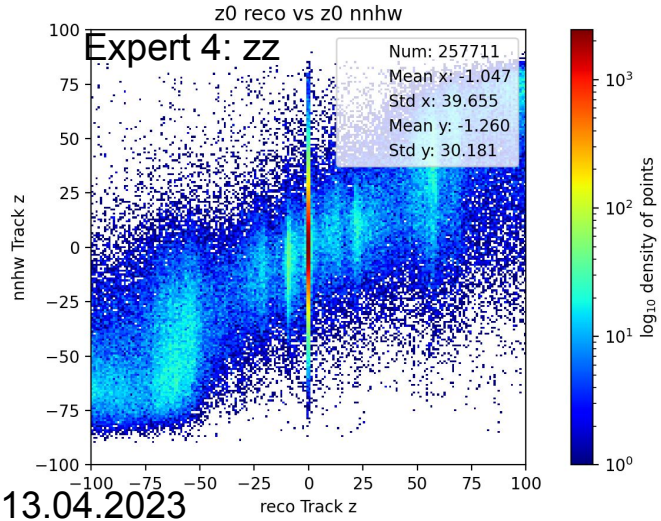
Network 3: 1 x 6320











Conclusion

Can we improve our Neurotrigger performance by just increasing the network parameters?

→ Yes, but it seems more layers are preferable

IP Z-Resolutions:

- Network 1: 6.1cm
- Network 2: 5.2cm
- Network 3: 6.2cm