

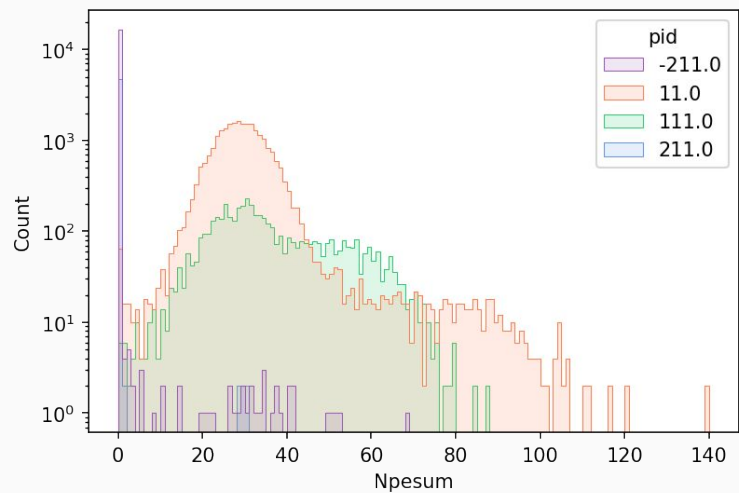
Week 9 - Thursday

Darren Upton

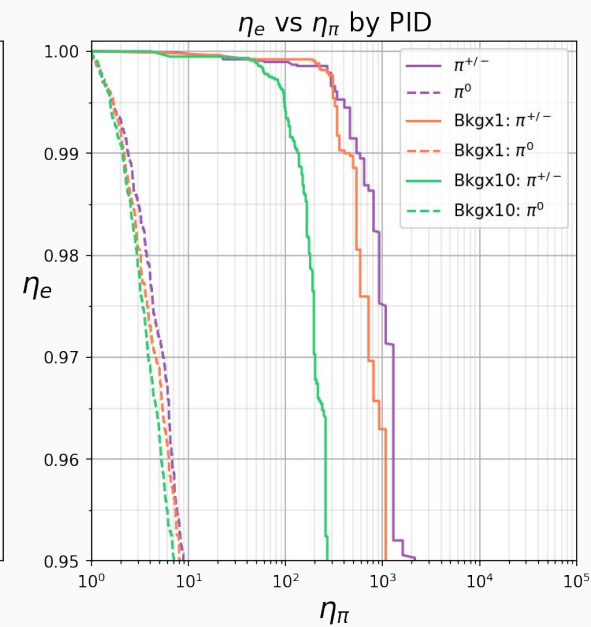
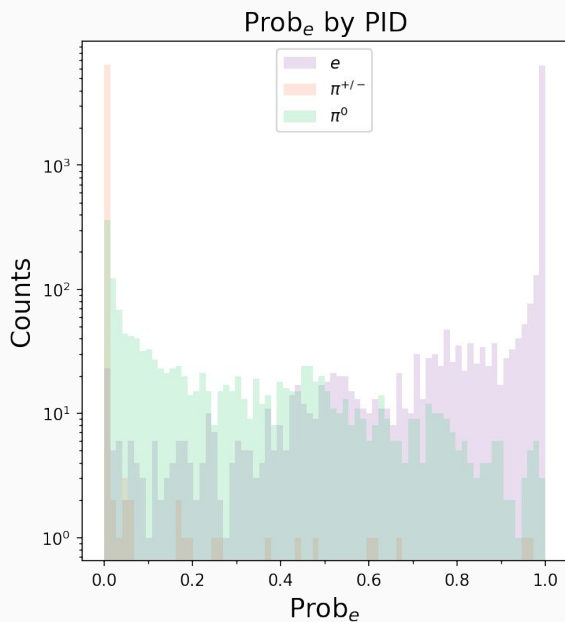


Three Particle PID - TS3

- ❖ Standard MLP for TS3 (A&D) with ECal, Cher, & SCs
- ❖ **Sample Sizes:** 25k, 21k, 5k
- ❖ **Results:**
 - Good for $\pi^{+/-}$
 - Hard for π^0



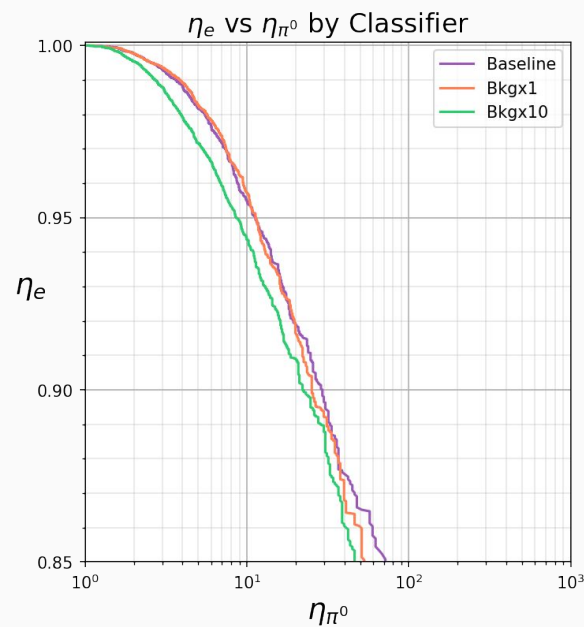
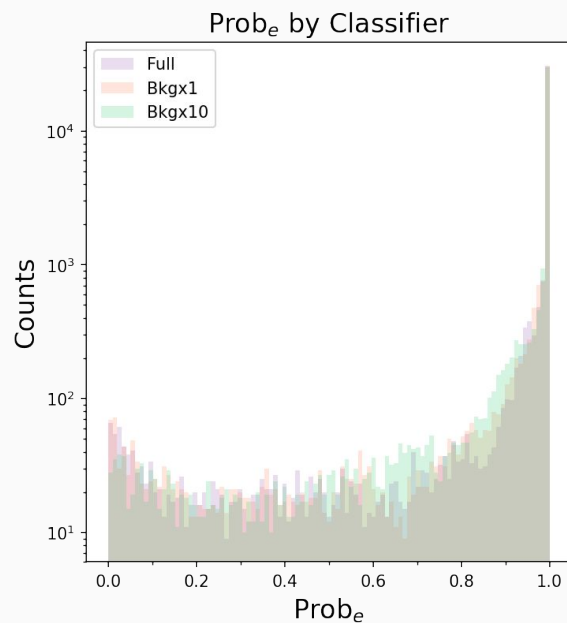
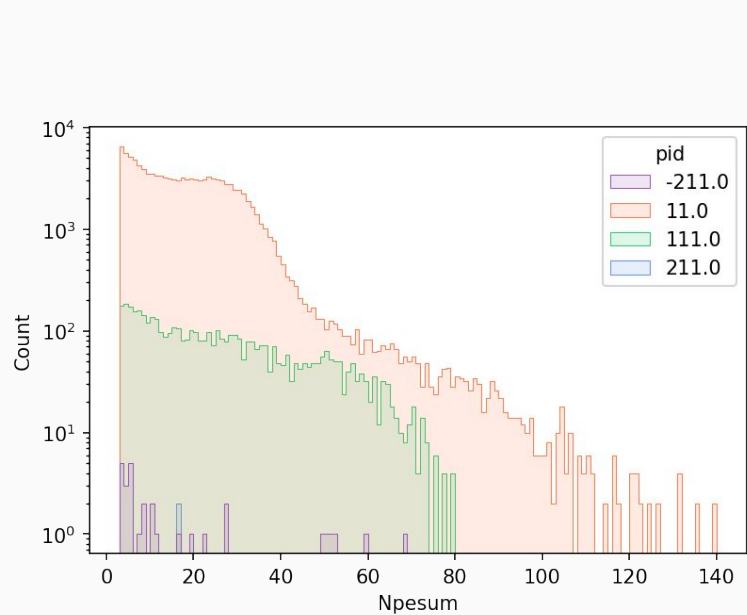
Classification for Beam Test Sim - TS3



TS1 with Bkg

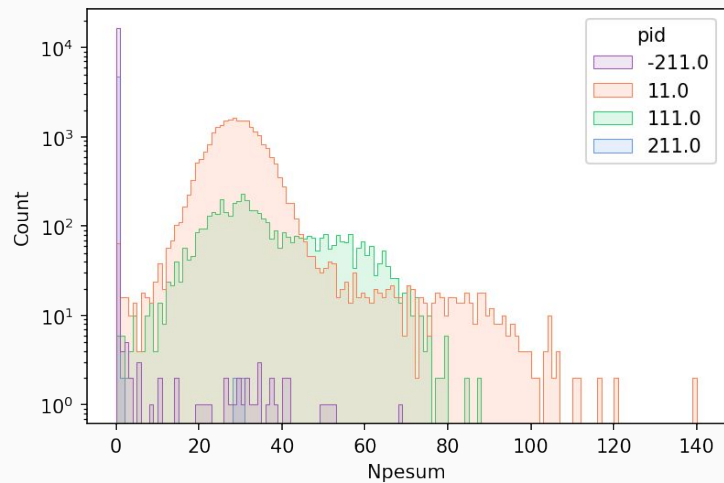
- ❖ **TS1 Req:** NPE & ShSum
- ❖ e & π^0 Samples: 114k, 5k

Classifiers for Beam Test Sim

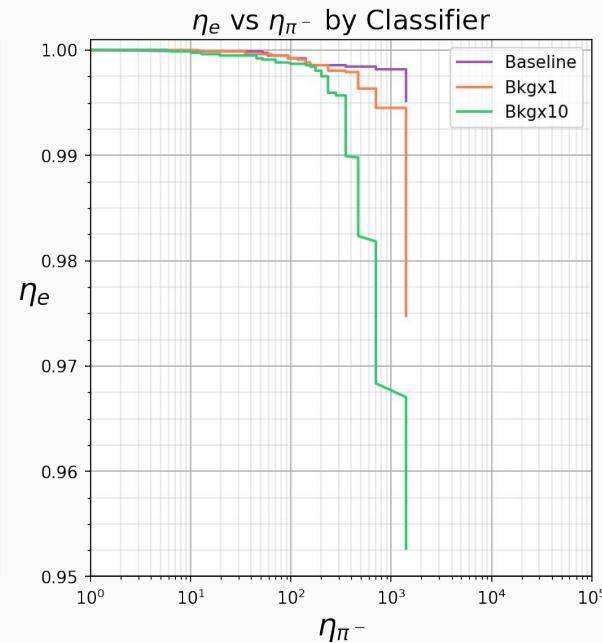
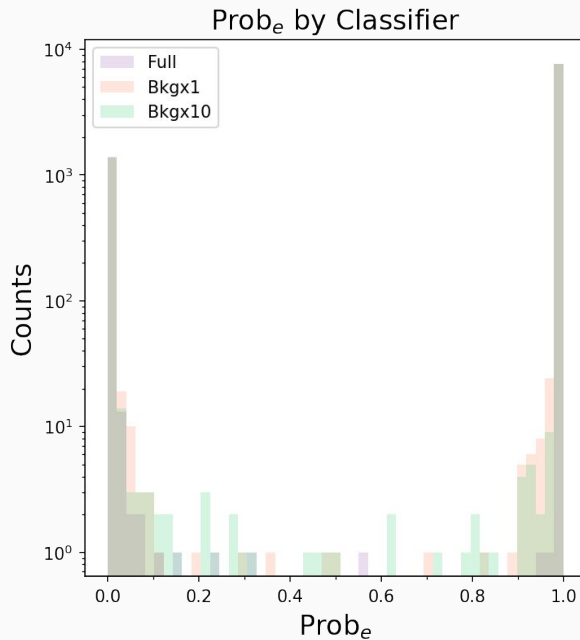


Charged PID for TS3

- ❖ Using ECal, NPE/NCh, & SCs
- ❖ TS3 A&D requirement
- ❖ **Sample Sizes: 25k, 5k**

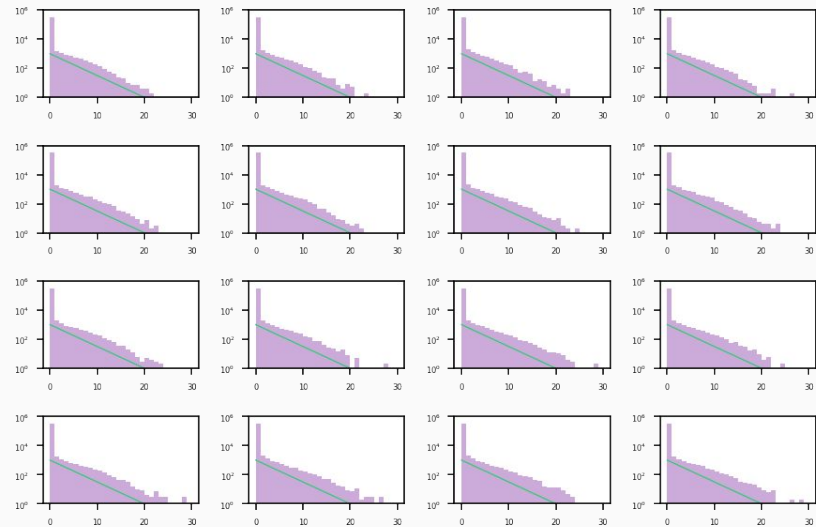


Classifiers for Beam Test Sim - TS3

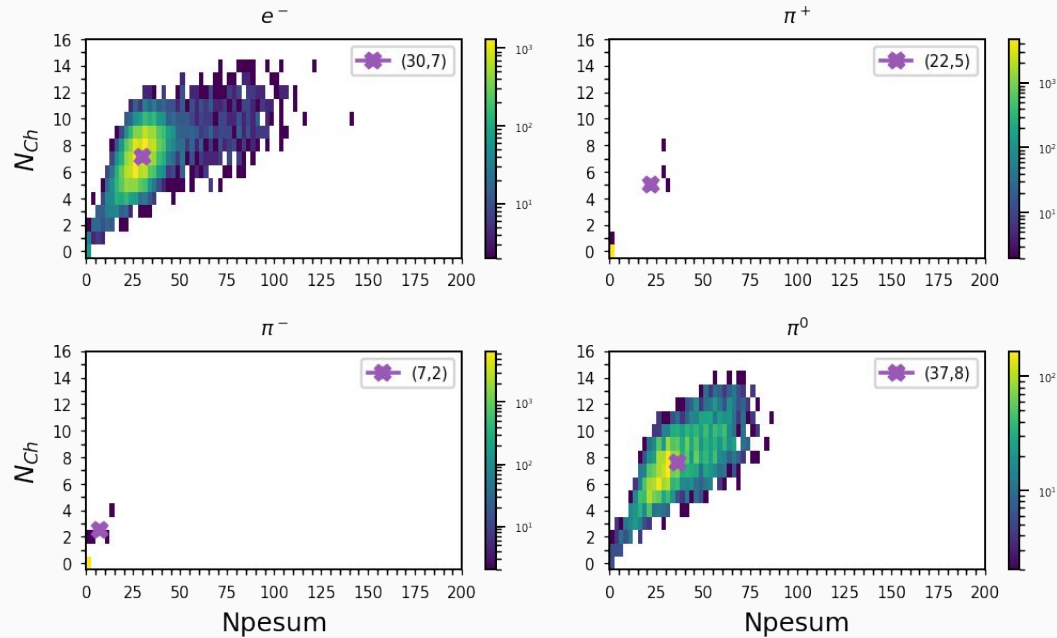


π^0 Sim

- ❖ New batch of sim
- ❖ π^0 shows elongated blob (2 e in Cher)



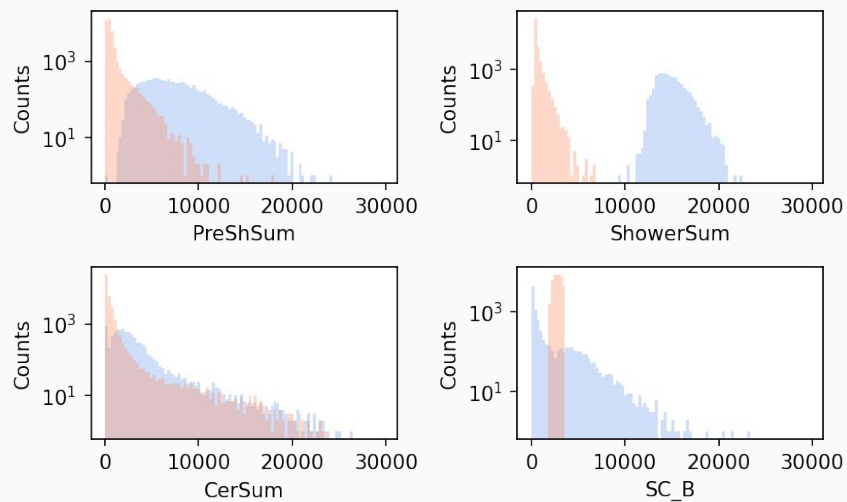
Beam Test Sim TS3: N_{Ch} vs NPE



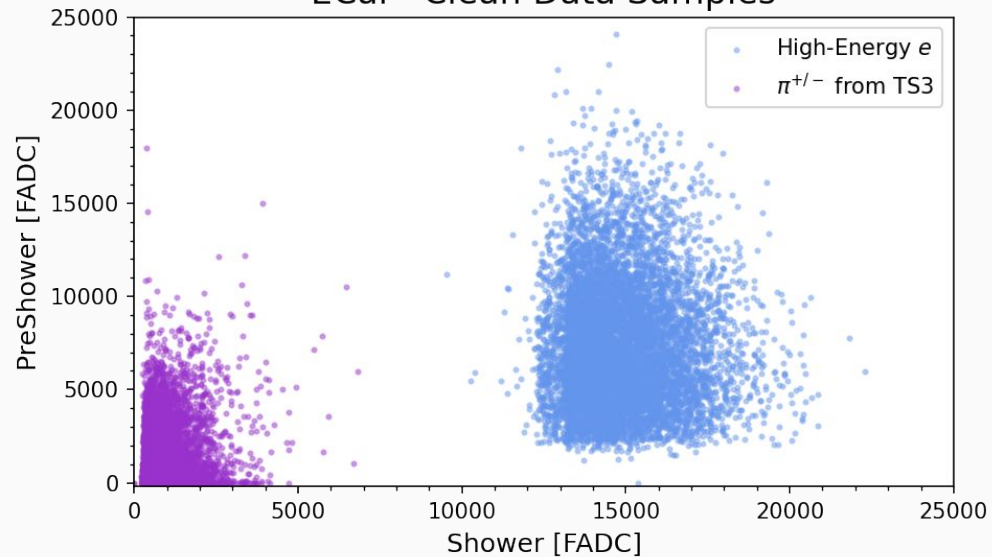
Samples of π & e

- ❖ e Sampls: Run4577 - High PreShSum & ShSum, $SC_D > 2000$ & TS4
- ❖ π Sampls: Run4779 - $LASPD > 150$, $2000 < SC_B < 3500$, TS4

Samples - e 8.7k & π 37.5k



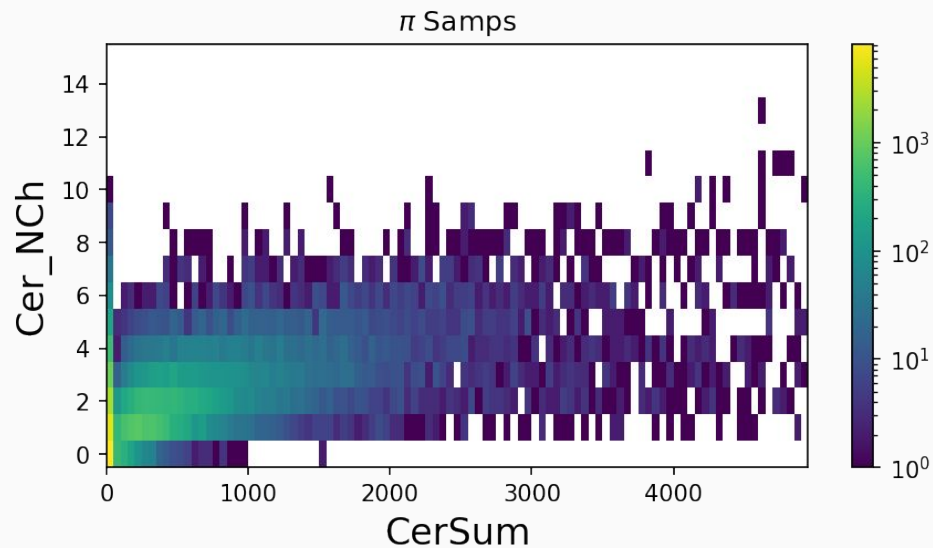
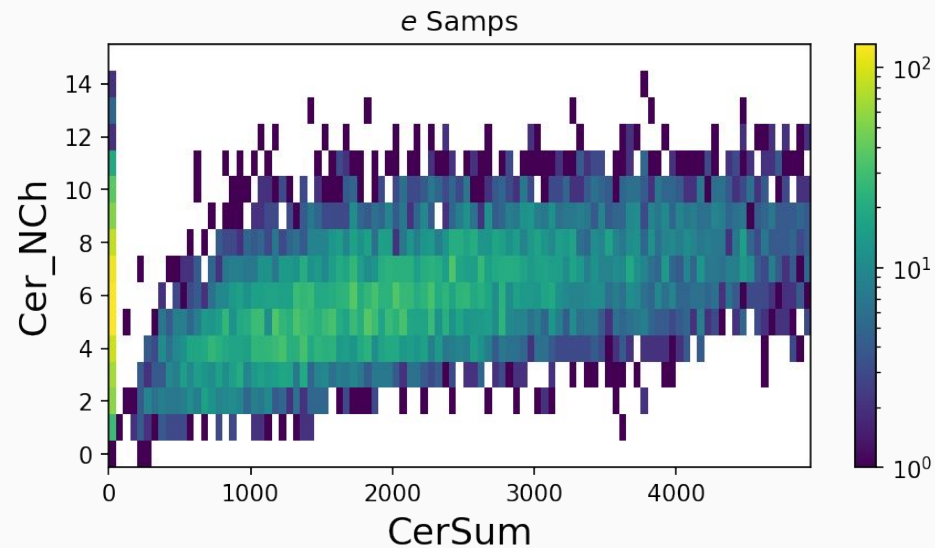
ECal - Clean Data Samples



Samples of π & e

- ❖ e Sampls: Run4577 - High PreShSum & ShSum, $SC_D > 2000$ & TS4
- ❖ π Sampls: Run4779 - $LASPD > 150$, $2000 < SC_B < 3500$, TS4

Cher - Data Samples



Samples of π & e

Beam Test Sim TS3: N_{Ch} vs NPE

