GPU enabled Particle Reconstruction using Graph Neural Networks

April 16, 2019

DAY 2: PROGRESS

► Initial training results



► (this is a sample image from one of the trainings because the one I actually wanted to show crashed before I could take save it)

DAY 2: PROGRESS

- ► What does the image mean?
- Represents the loss for the GNN training on Tracking Data
- Exponential decay causes the variation in learning rate
- ► The lighter lines above/below represent the change of the minima/maxima with time.

PROBLEMS FACED IN CURRENT APPROACH

- ► Training GraphNets is computationally expensive
- ► Graph based data structures which are optimized for GPUs

DAY 1: PROGRESS

- Discussion with the NVIDIA team to explain our project and issues regarding training/code optimization
- ► Initial training results

