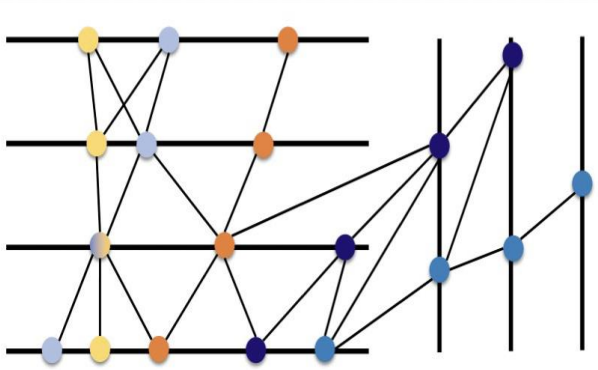
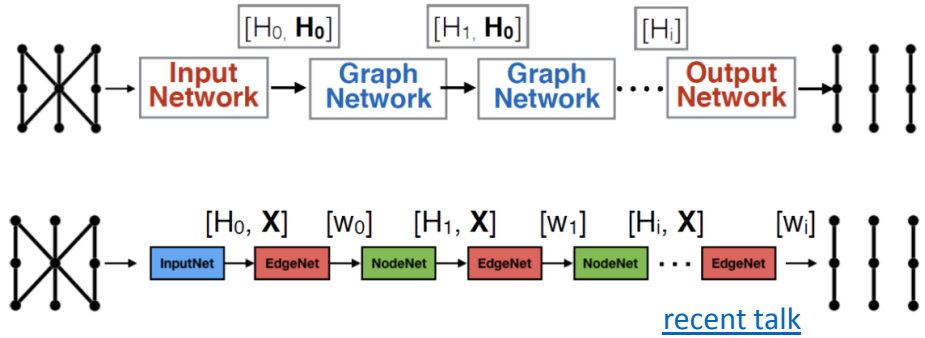
Tracking with Graph Neural Networks

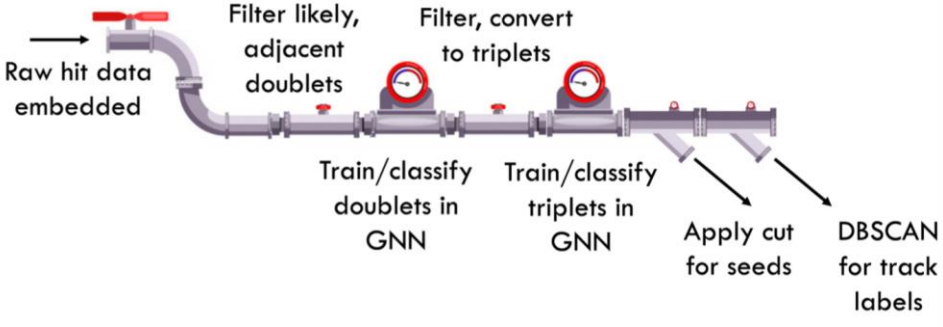
Collaborating on optimization, performance, and validation studies of ML approaches to Exascale tracking problem

- Represent tracking data as a graph:
  - Hits = nodes
  - Edges = track segments
- Developing multiple GNN architectures for tracking:
  - Recurrent edge-classifier
  - Interaction network
- Exploring graph construction, embeddings and data augmentation
- A long-term goal is to implement these networks on FPGAs for trigger





recent talk



recent talk