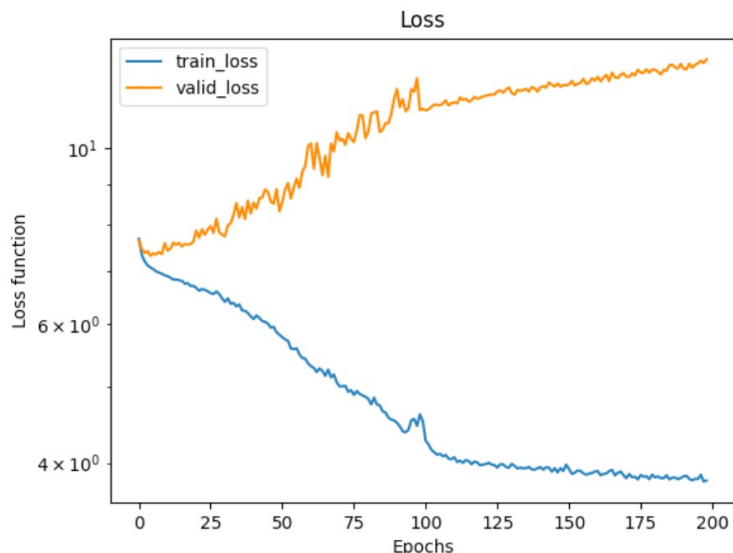


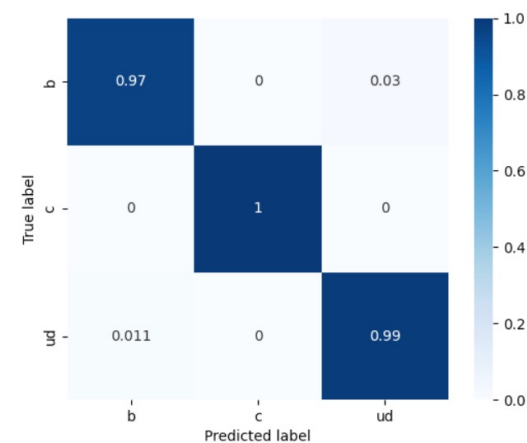
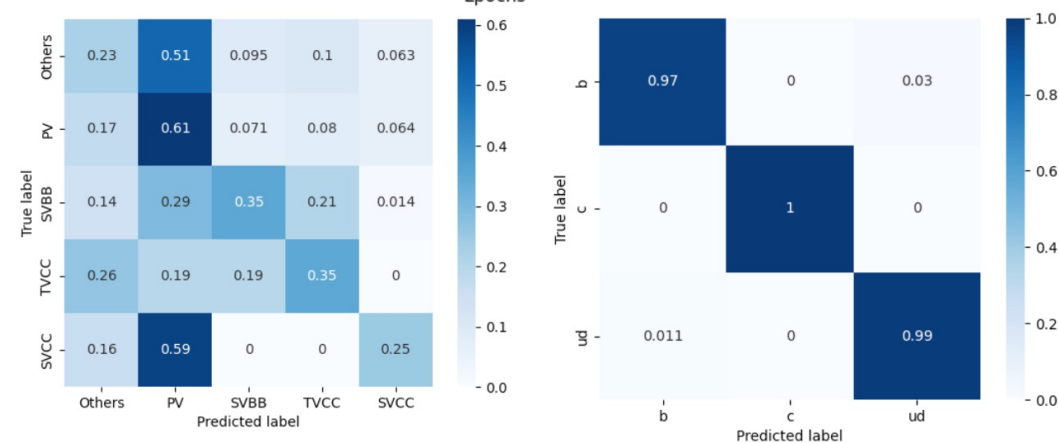
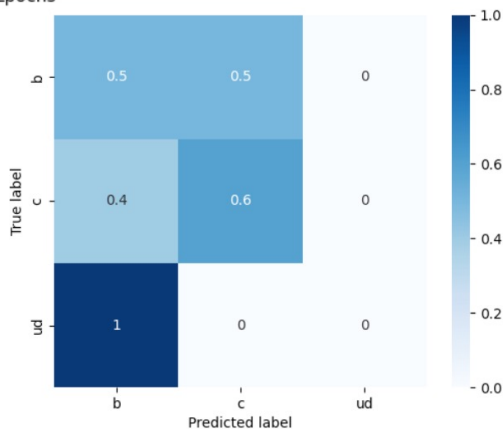
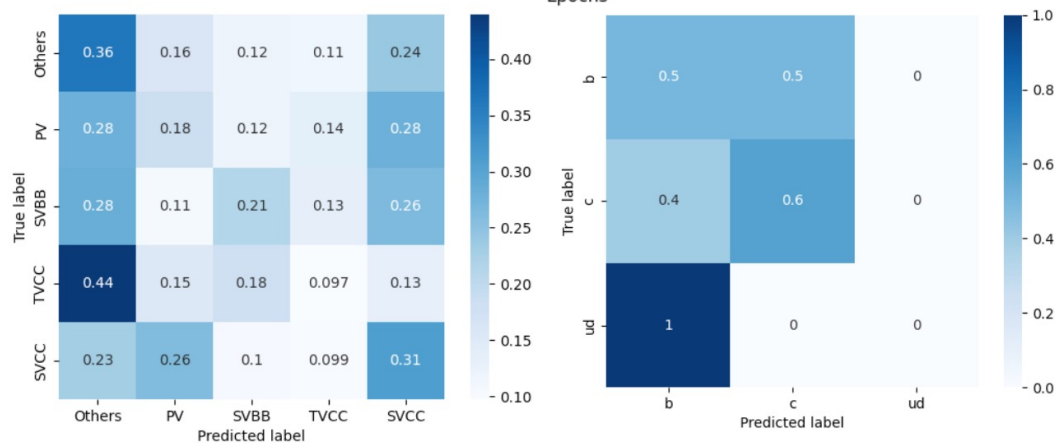
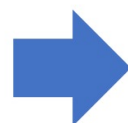
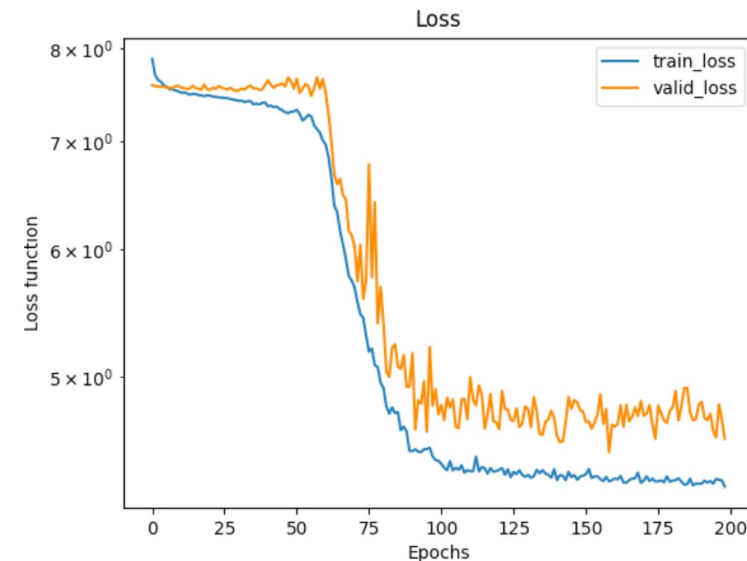
Status Report

Improvement by resolving “graph label” imbalance

2000events (b:c:uds=7:7:6)

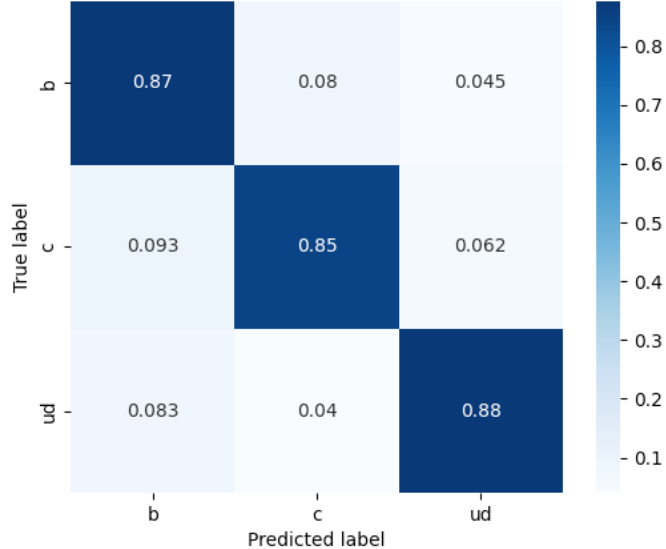


3000events (b:c:uds=1:1:1)

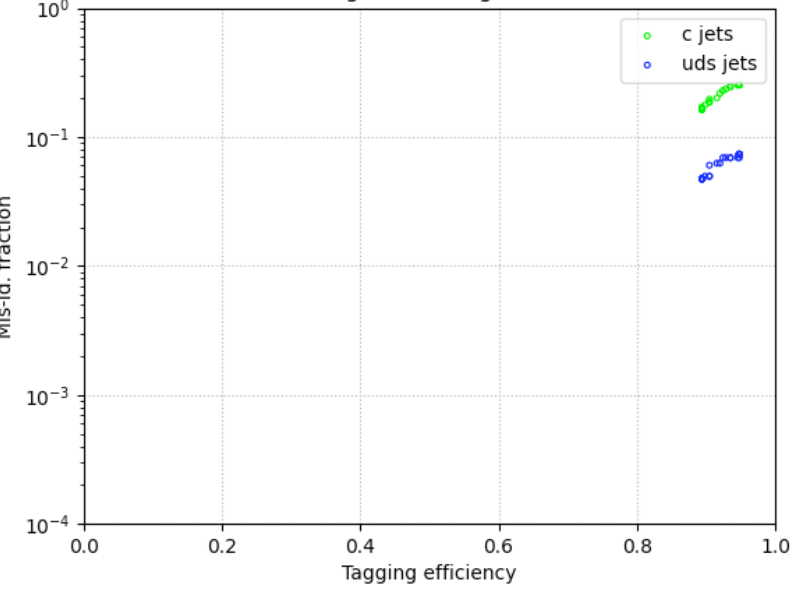


Current Results

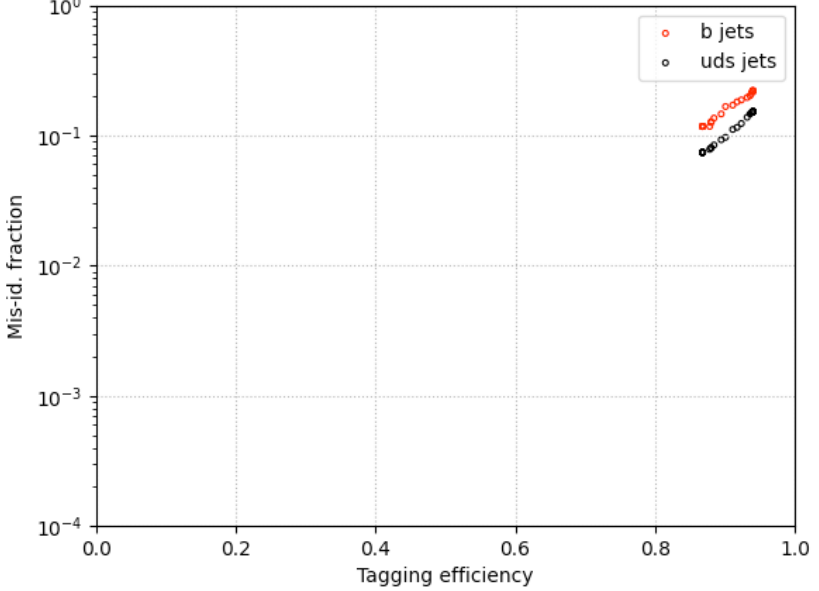
- 15k events (2 fermion)
- Graph Attention 3 layer



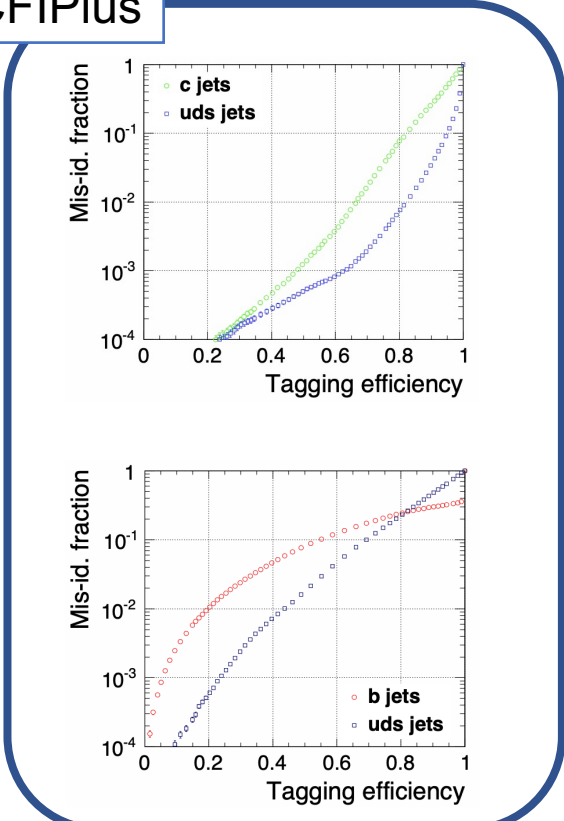
b tag with background



c tag with background

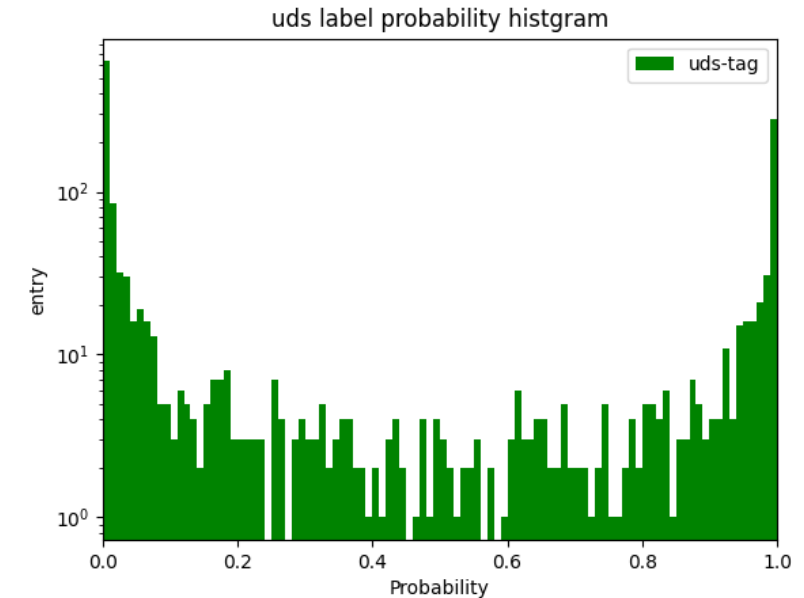
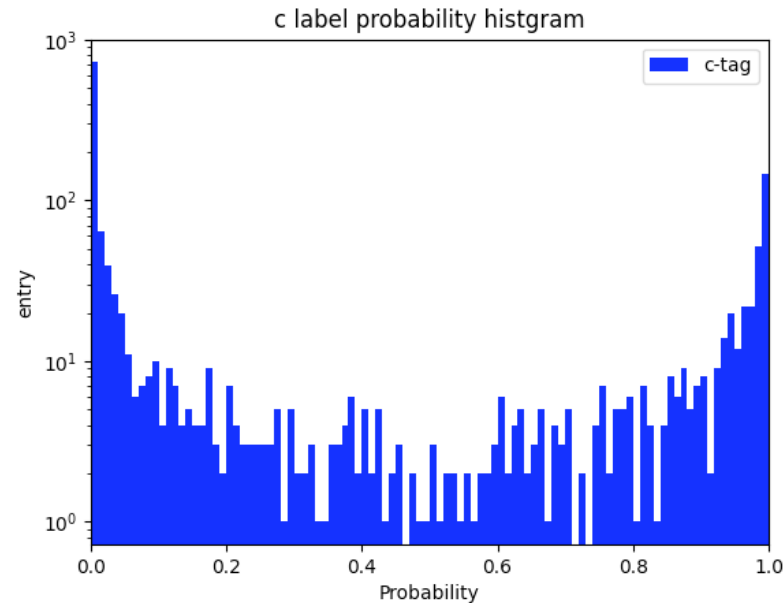
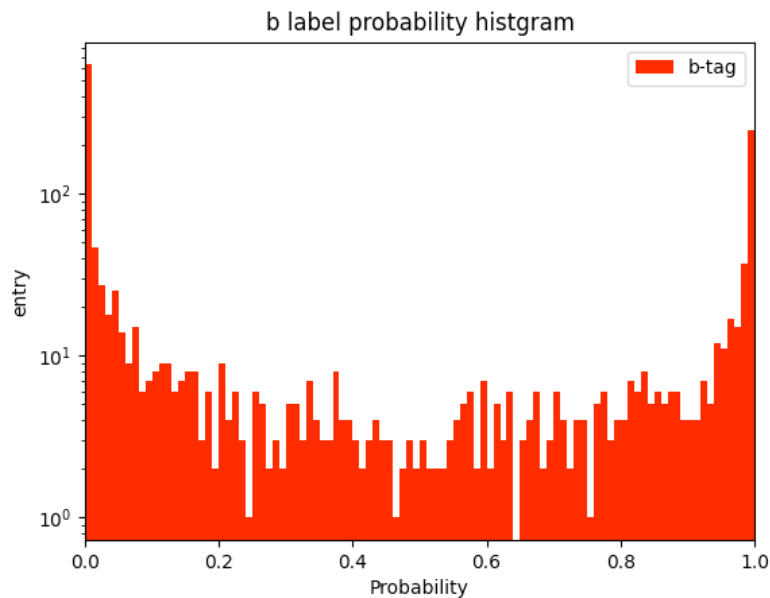
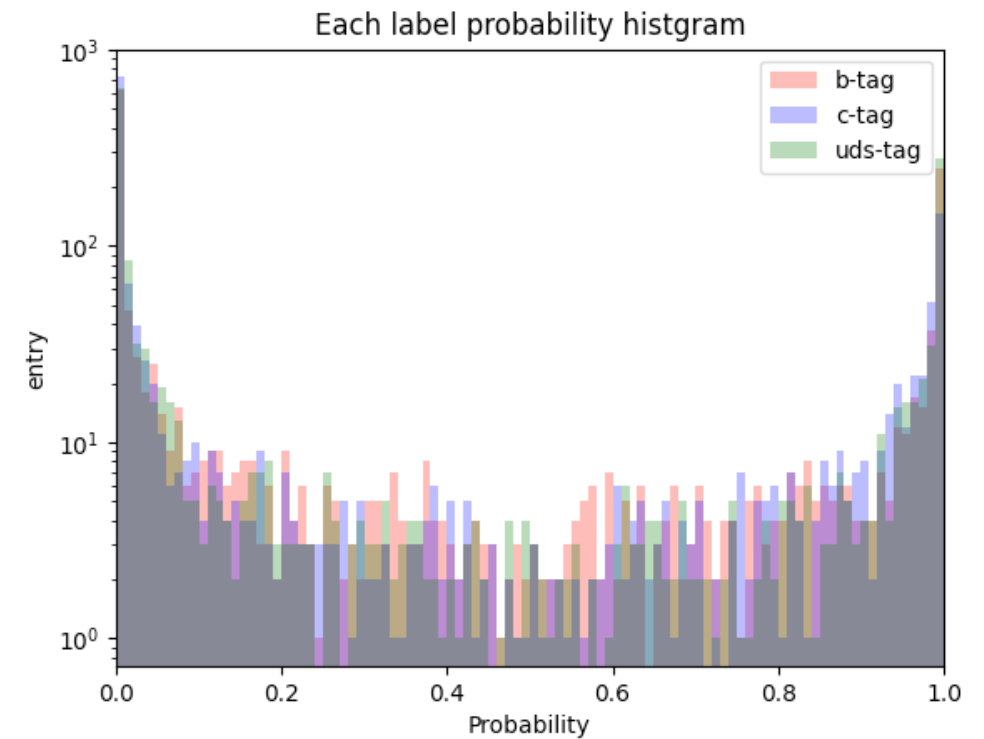


LCFIPlus



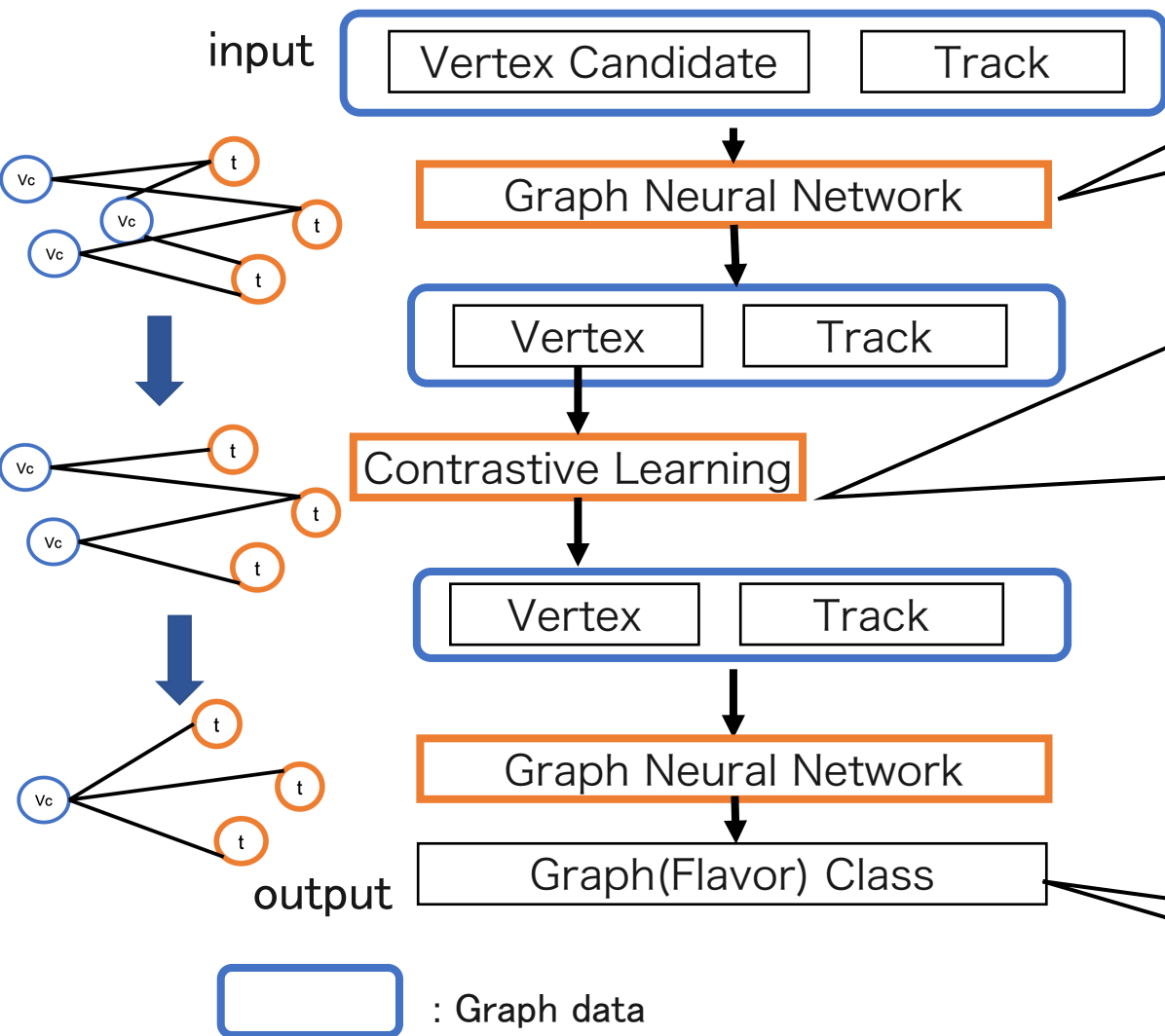
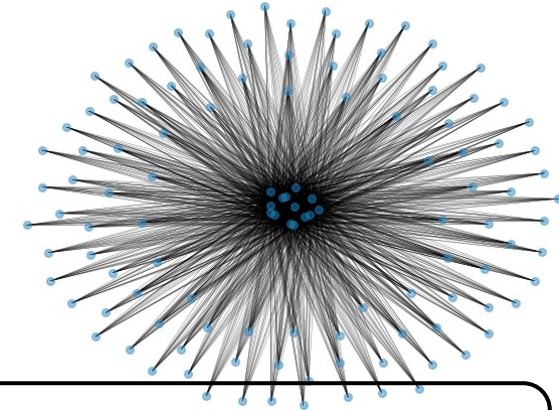
Tagging probability

- In classification problems, output means probability values for each label (b/c/uds)

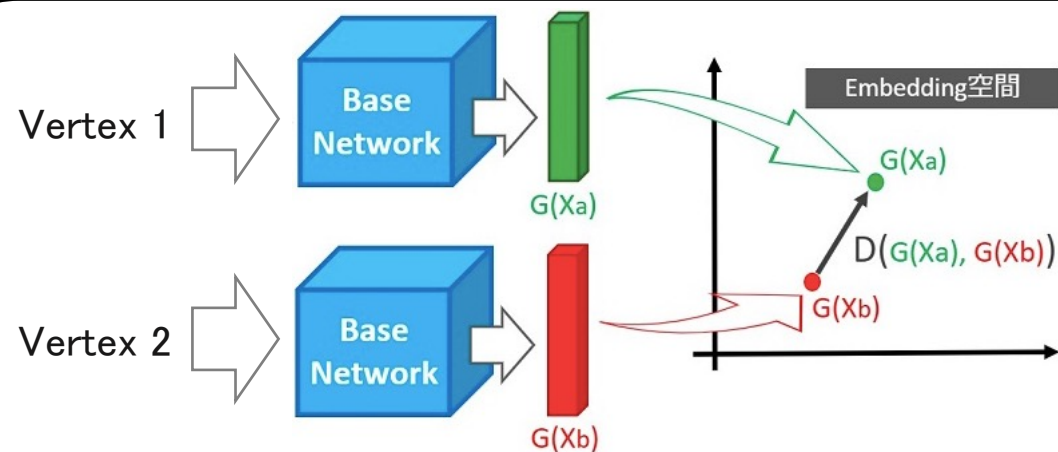


Backup

Previous strategy



Judge whether a vertex candidate is an existing vertex or not as node classification.



Deep Metric learning brings Vertices of the same parent particle closer together.

Classify the entire graph into flavor types