Toward Realistic Reconstruction of Hyperons in the PANDA Experiment at FAIR

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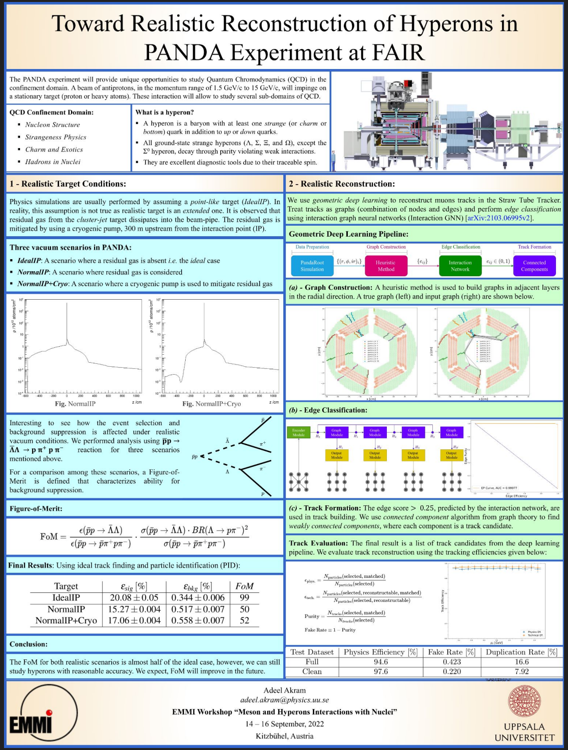
Realistic Reconstruction

(A) - Realistic Target Conditions

- From a *point-like* target to an *extended* target
- Hyperon reconstruction using $\bar{p}p \rightarrow \bar{\Lambda}\Lambda$ channel, comparison both cases using a Figure-of-Merit (FoM)
- Ideal tracking and pid algorithms are used

(B) - Realistic Track Reconstruction

- Graph representation of tracks in the form of nodes/edges
- Perform *Edge Classification* using Interaction GNN
- Track formation by using Connected Components method
- The data include 5 muon pairs per event, 10^5 events in total



Thank you for your attention