

Track - Shower

vs

(4 category classification)

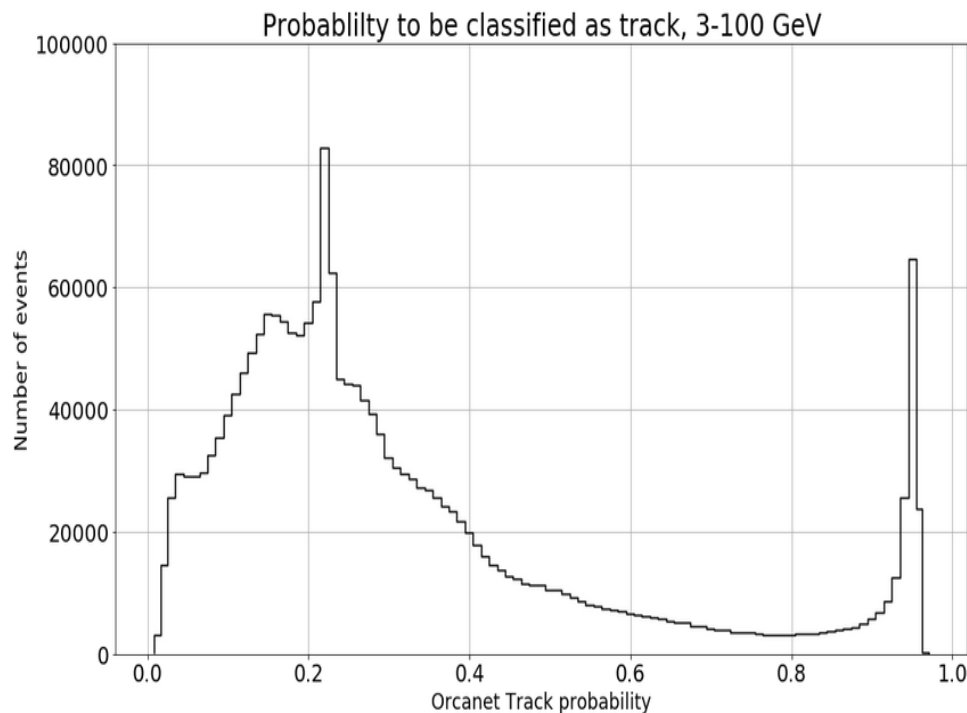
Track - EM shower - NC Shower - Tau

Some comparative results

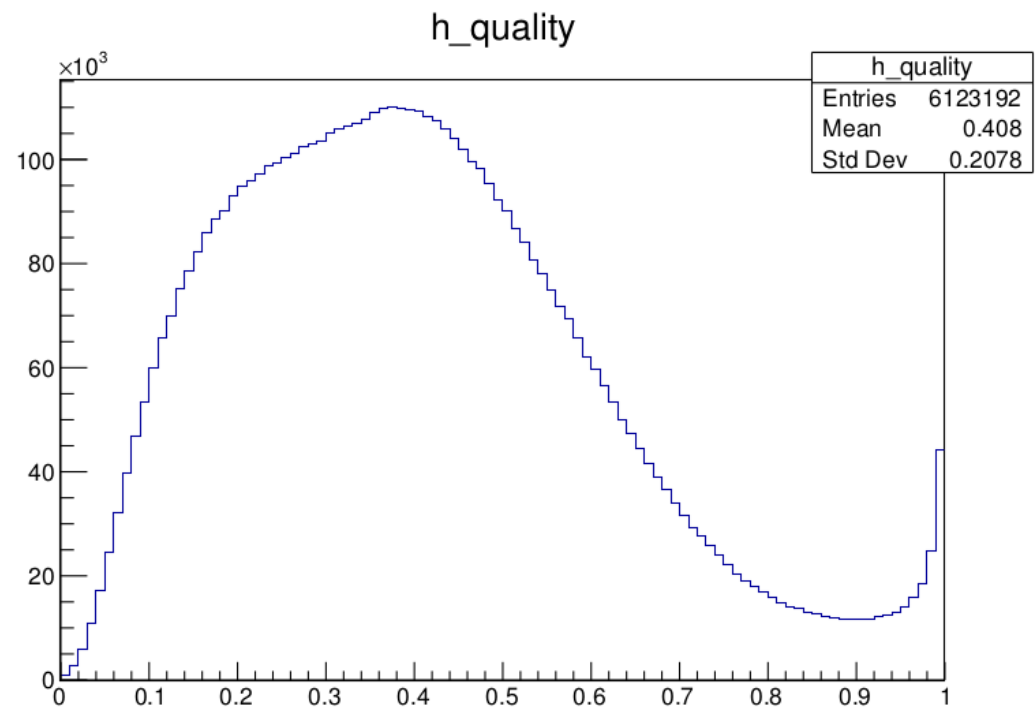
Prior notes

- **Small model with “little” data.**
- **Benchmarking purpose.**
- **Coming up a final version.**
- **Still far from the collaboration “state of the art”.**

Track prediction power



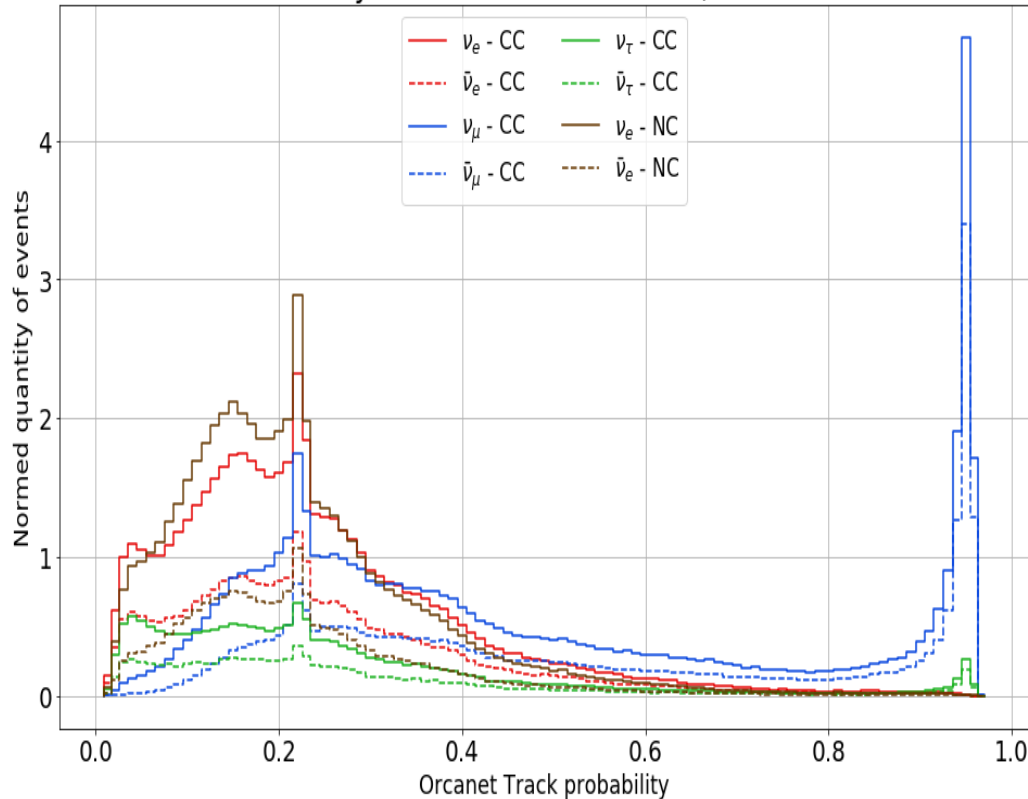
My OrcaNet implementation



From Lodewijk:
Std. Reco, Random Forest
(older ML technique)

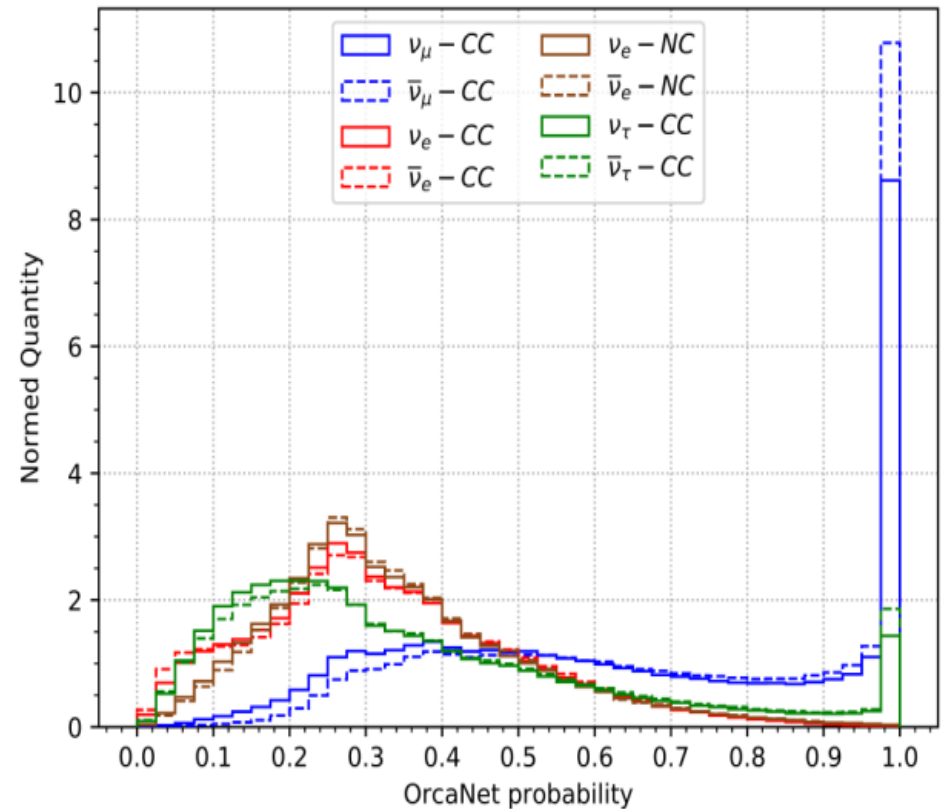
Decomposing the prediction

Probability to be classified as track, 3-100 GeV



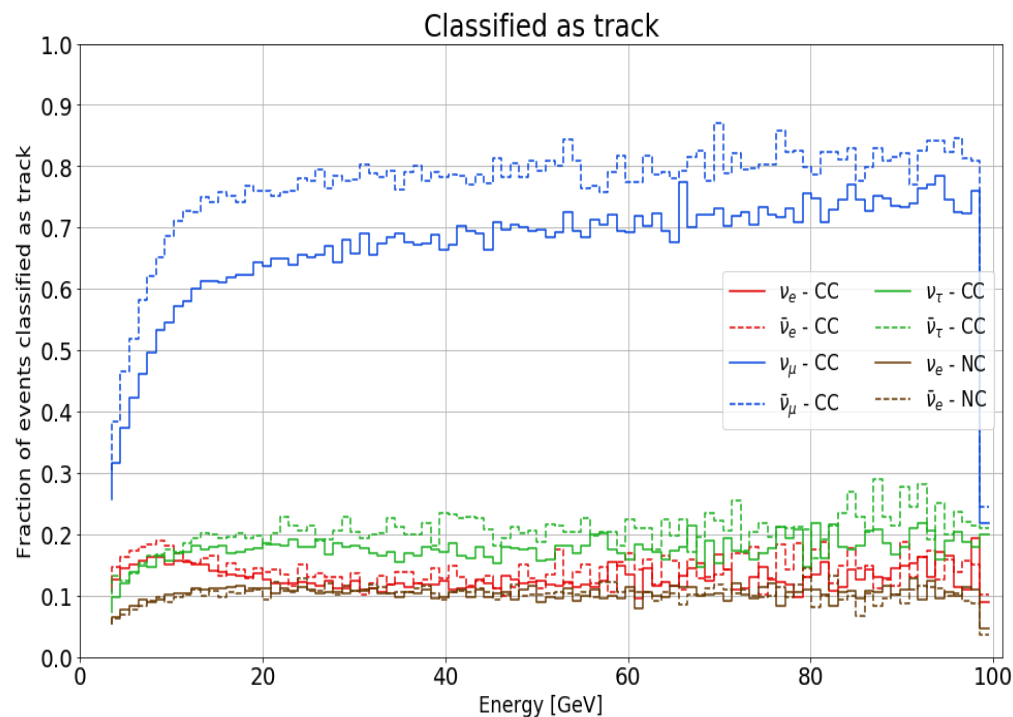
Me

Probability to be classified as track, 3-40GeV

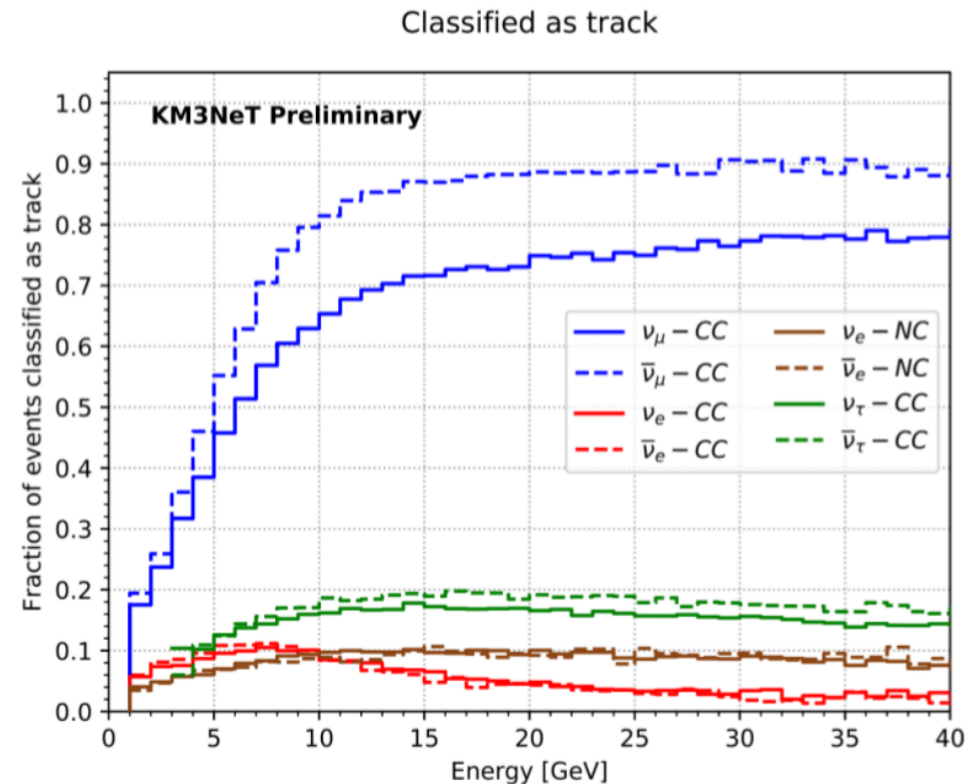


Moser
(ECAP)

Track - Shower, energy dependency



Me



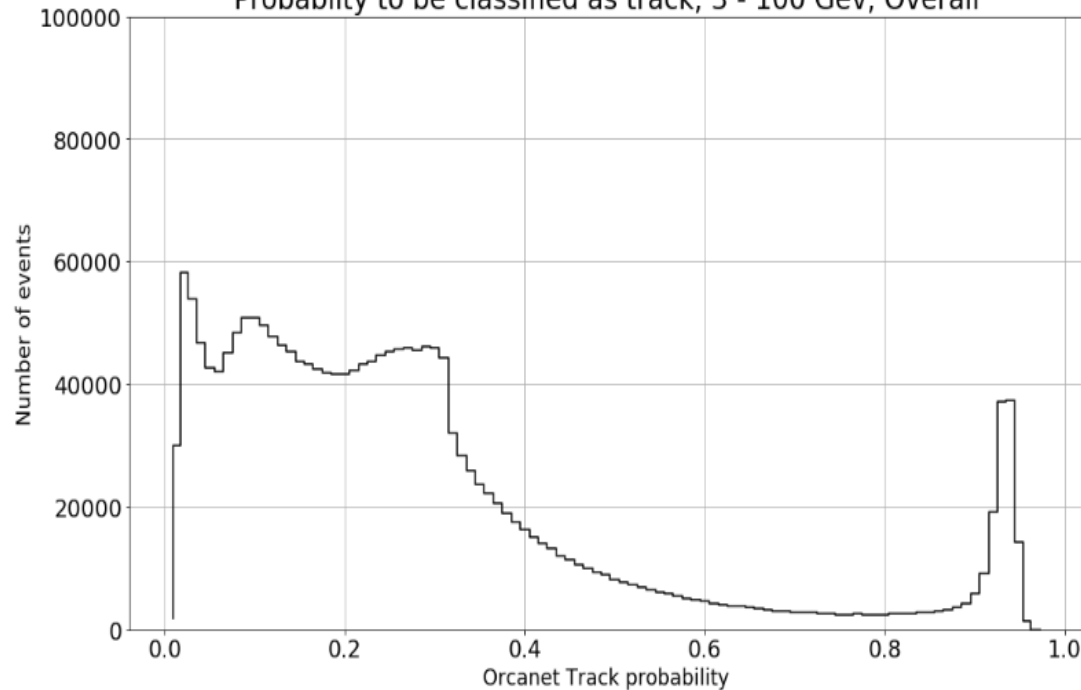
Moser
(ECAP)

Now, 4 category version



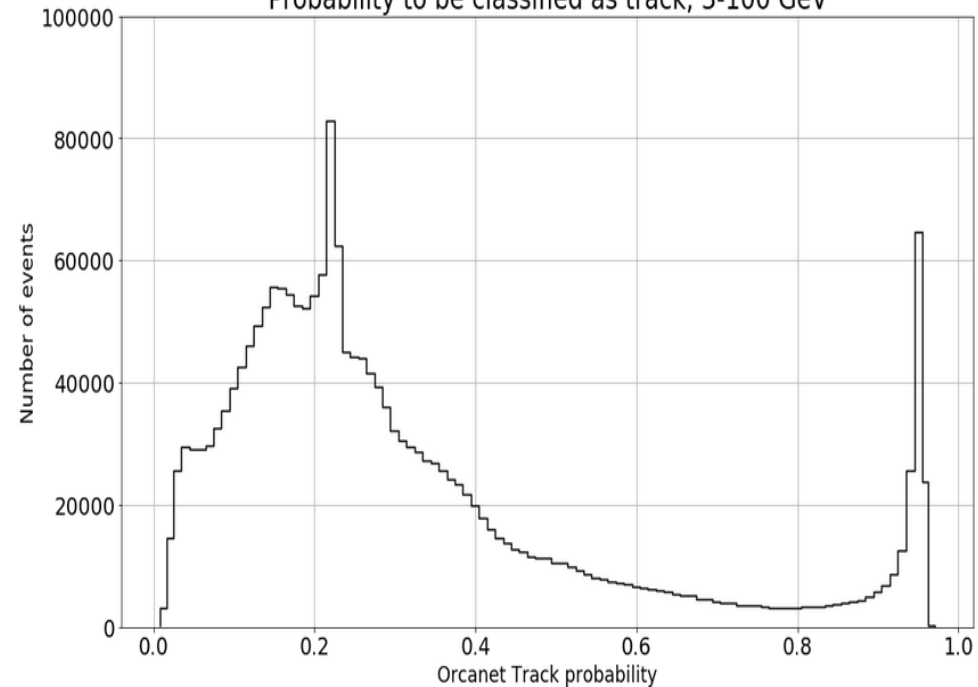
Track prediction power

Probability to be classified as track, 3 - 100 GeV, Overall



4 categories

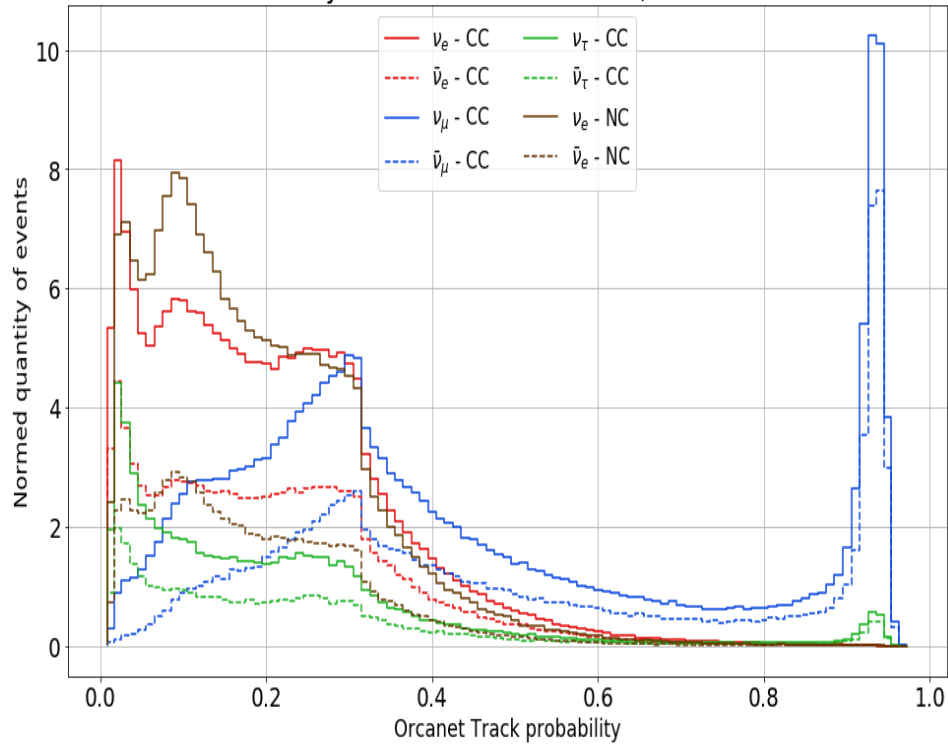
Probability to be classified as track, 3-100 GeV



2 categories

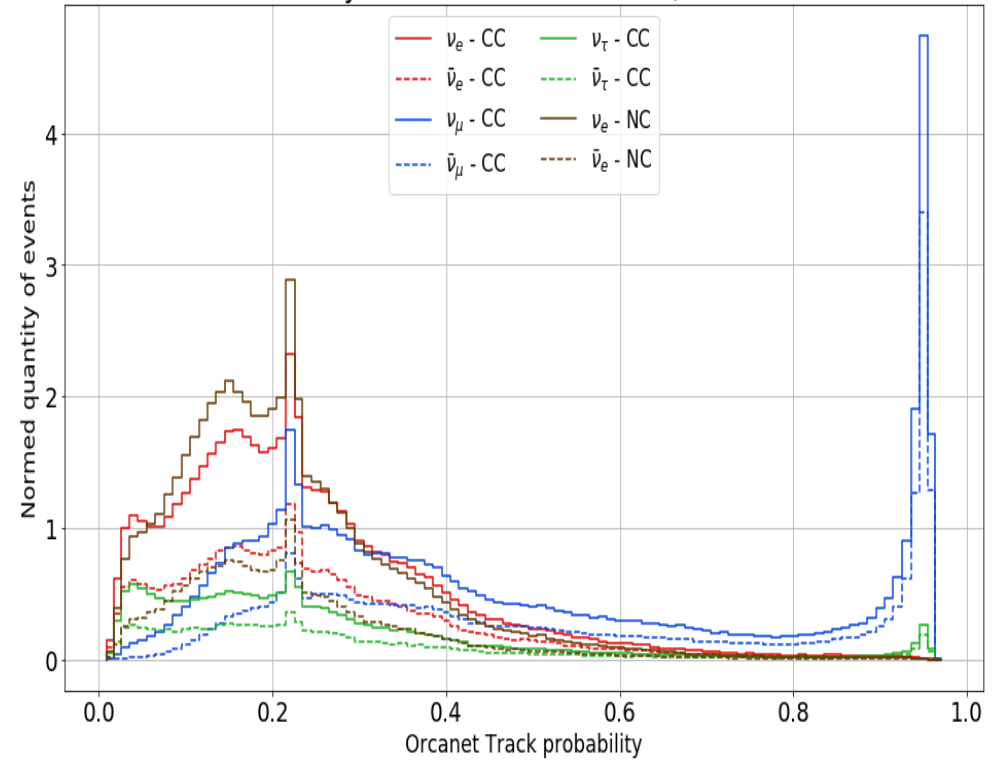
Prediction power

Probability to be classified as track, 3 - 100 GeV



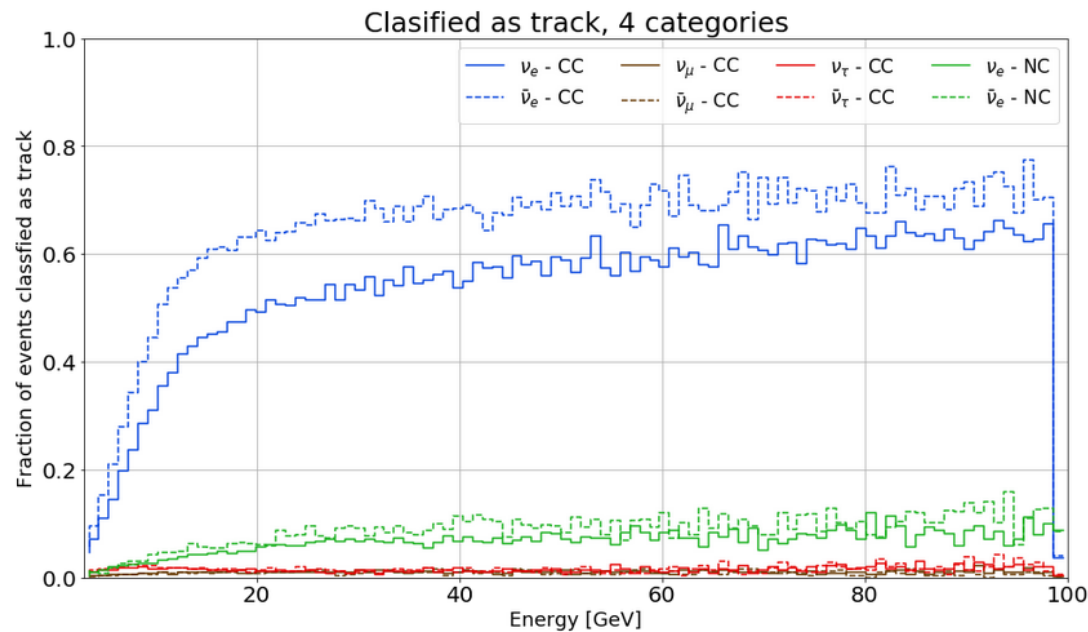
4 categories

Probability to be classified as track, 3-100 GeV

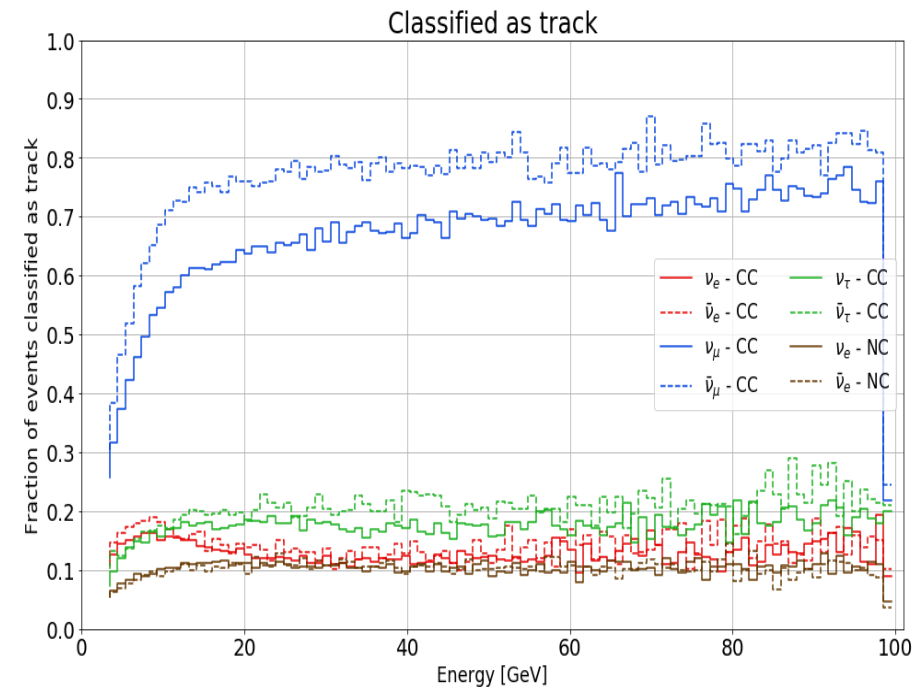


2 categories

Track - Shower, energy dependency



4 categories



2 categories