eA study

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Mc Sample

- BeAGLE and input tuned by ECCE
- 10 GeV/c per charged nucleon in all events
- $Q^2_{min} = 1\ GeV^2,\ Q^2_{max} = 100\ GeV^2,\ y_{min} = 0.01, y_{max} = 0.95$

- $e(3.5\ GeV/c) + D(10\ GeV/c\ per\ nucleon)$: 1×10^9,

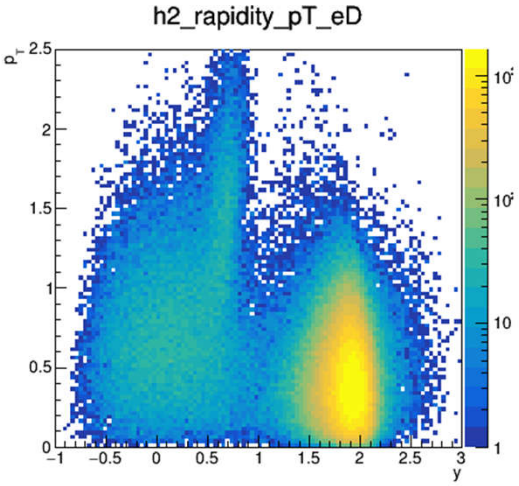
  $$\mathrm{L} = 5.4072/2\ fb^{-1} (\sigma_{e(3.5\ GeV/c)+p(10\ GeV/c)} = 0.18494\ pb^{-1})$$

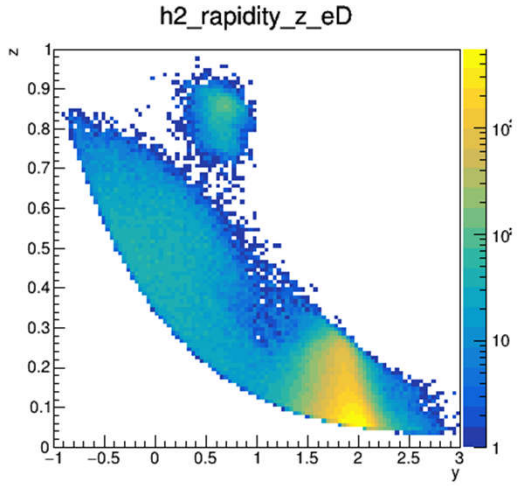
- $e(3.5\ GeV/c) + Pb(7.9227\ GeV/c\ per\ nucleon)$: 357373695,

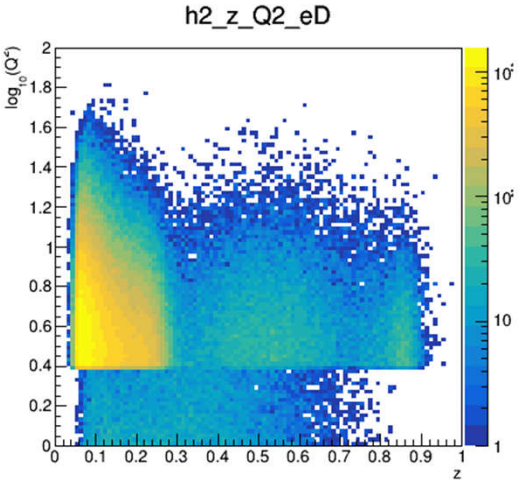
  $$\mathrm{L} = 2.17266/207\ fb^{-1} (\sigma_{e(3.5\ GeV/c)+p(7.9227\ GeV/c)} = 0.164487\ pb^{-1})$$

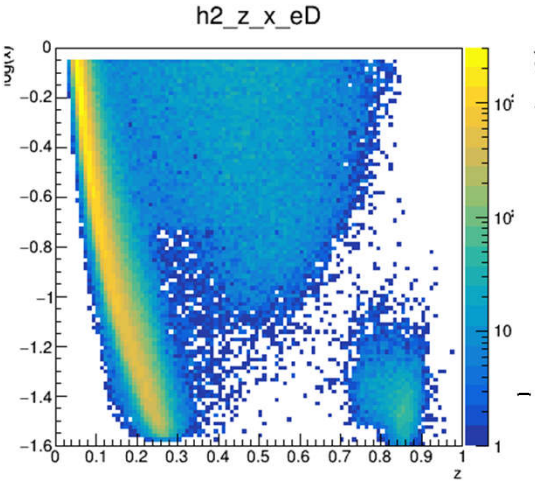
Λ_c Monte-Carlo Distribution

- e-D

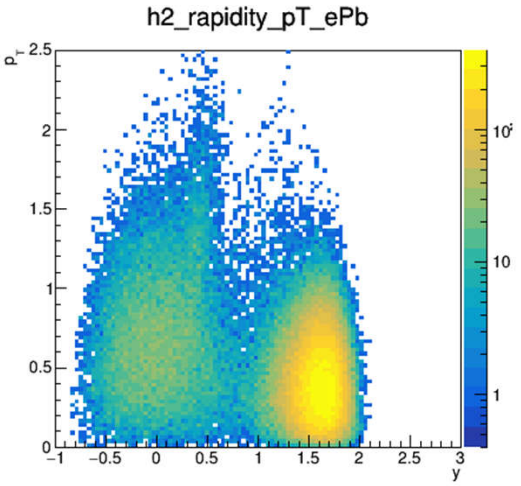


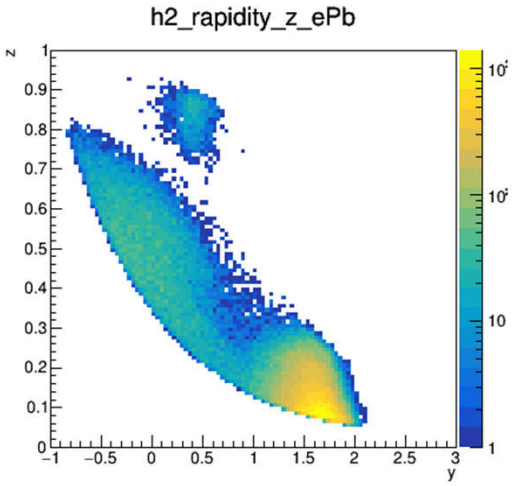


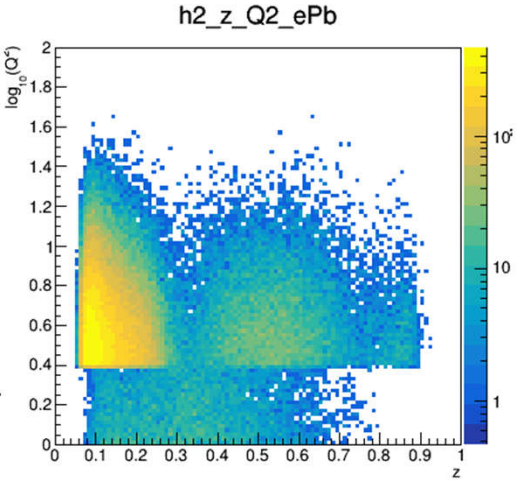


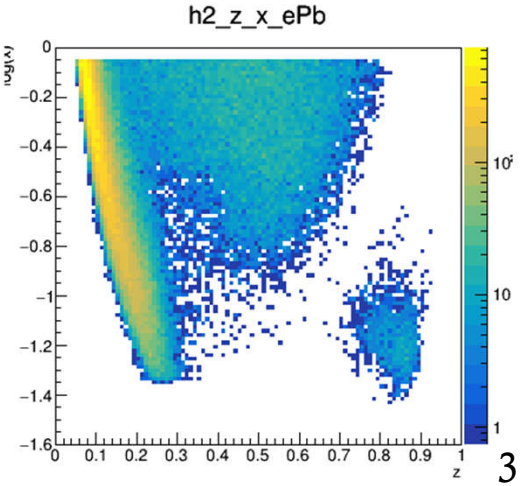


- e-Pb

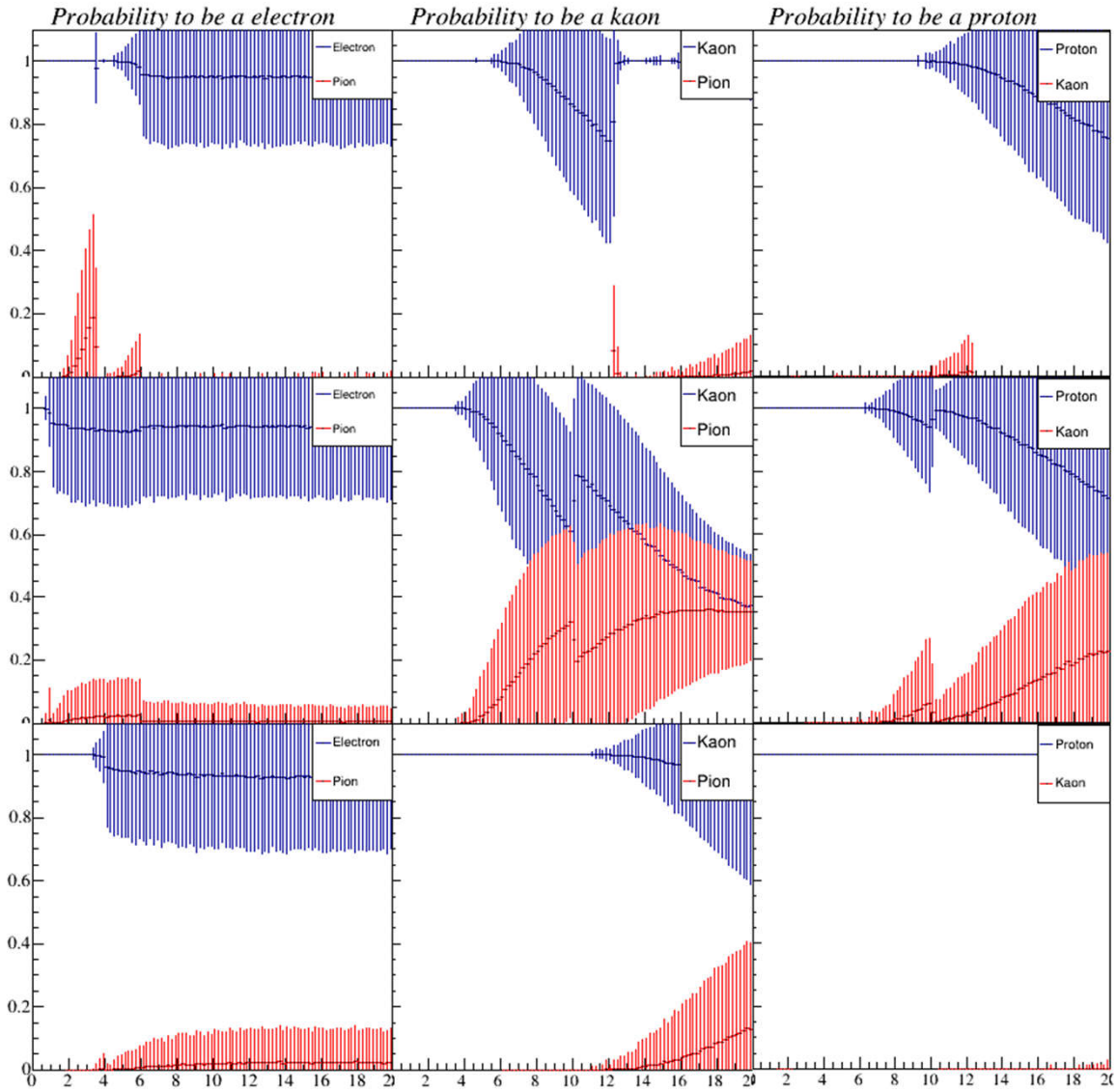








PID Simulation

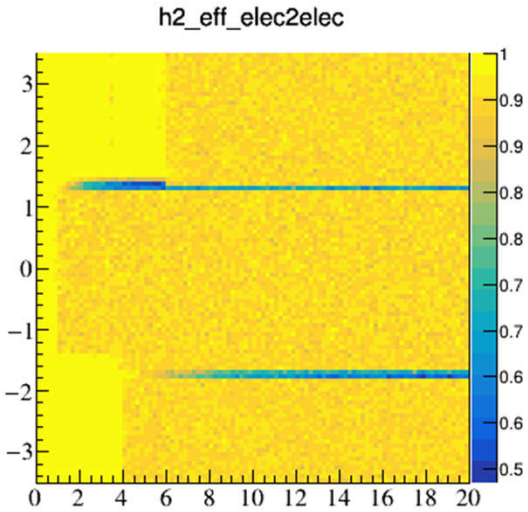


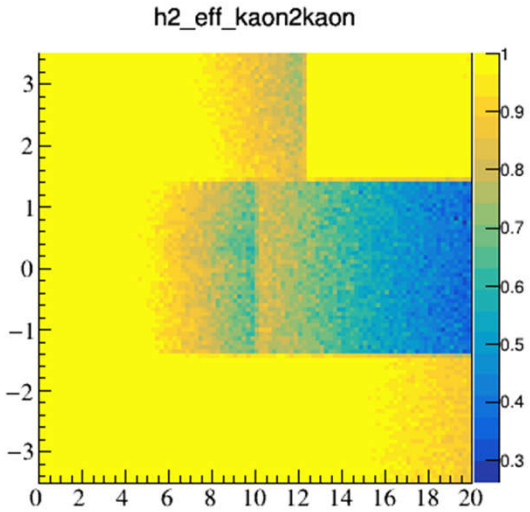
Forward

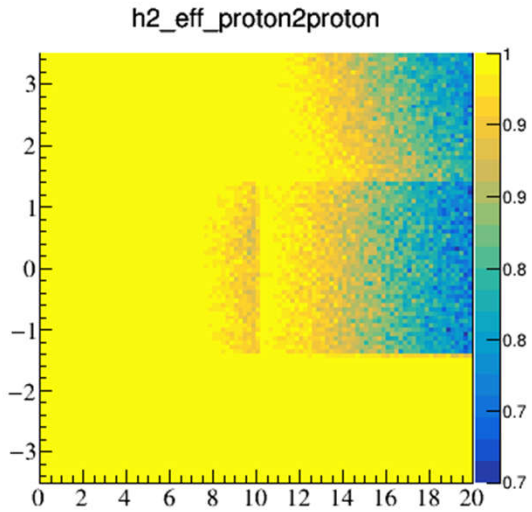
Barrel

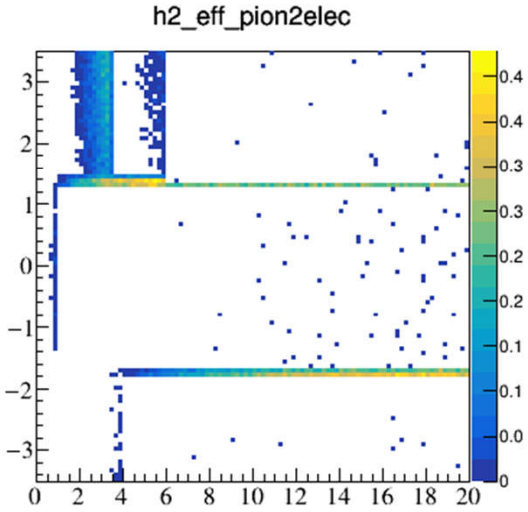
Backward

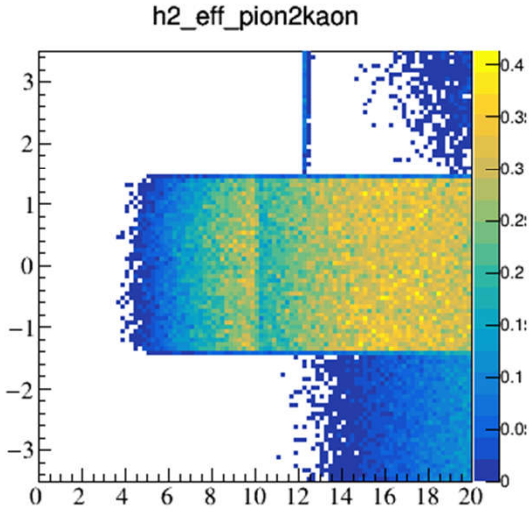
PID Simulation

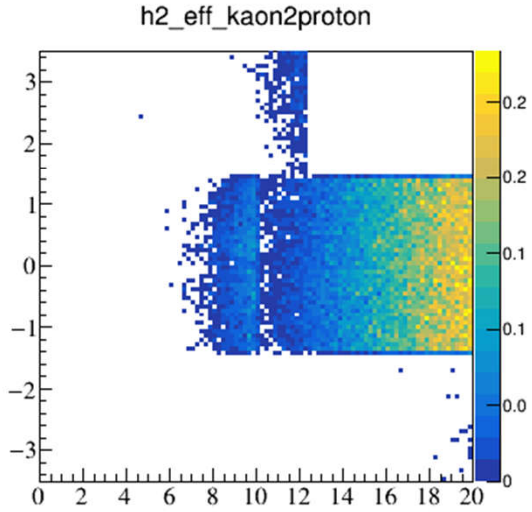




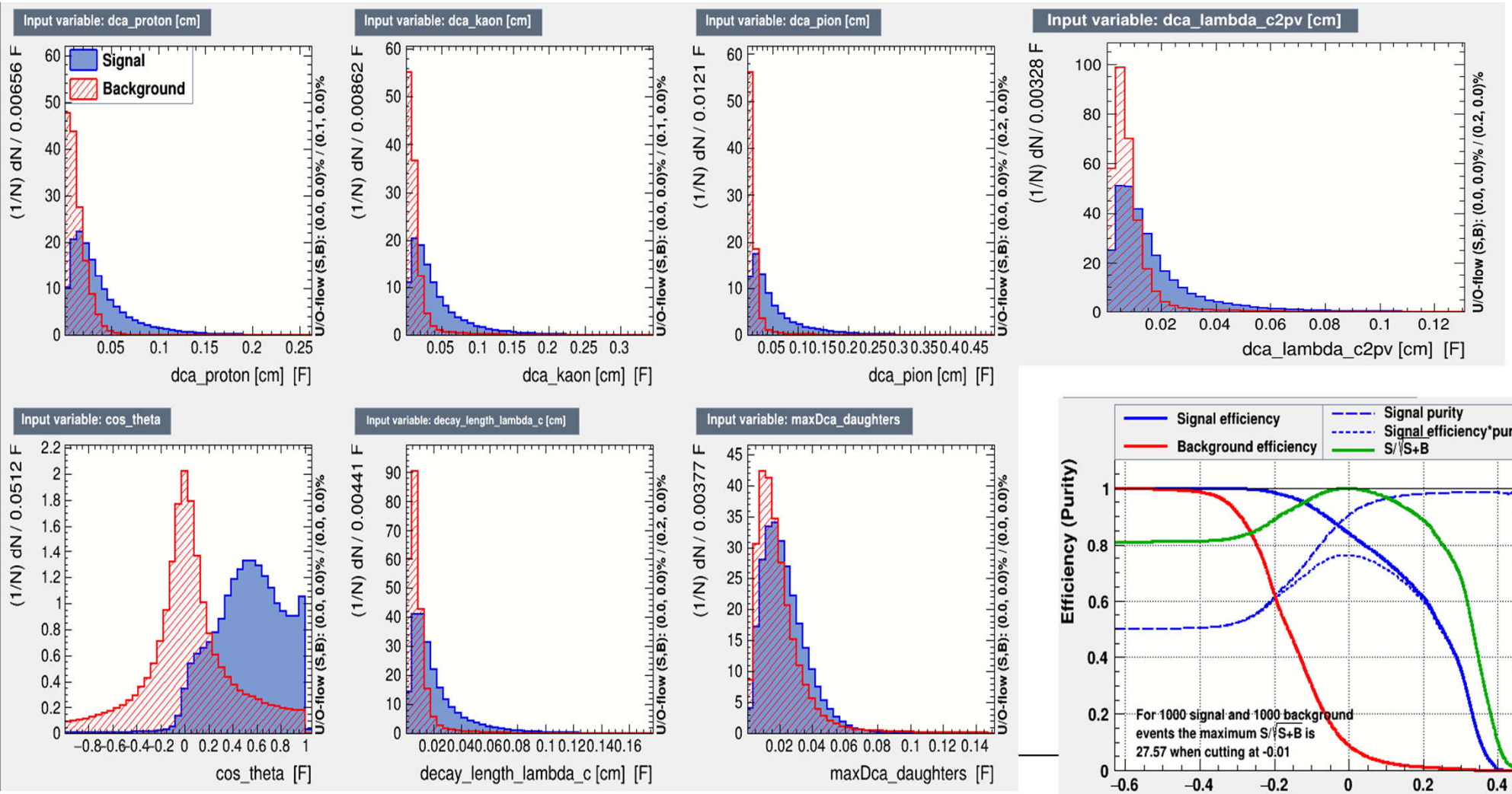




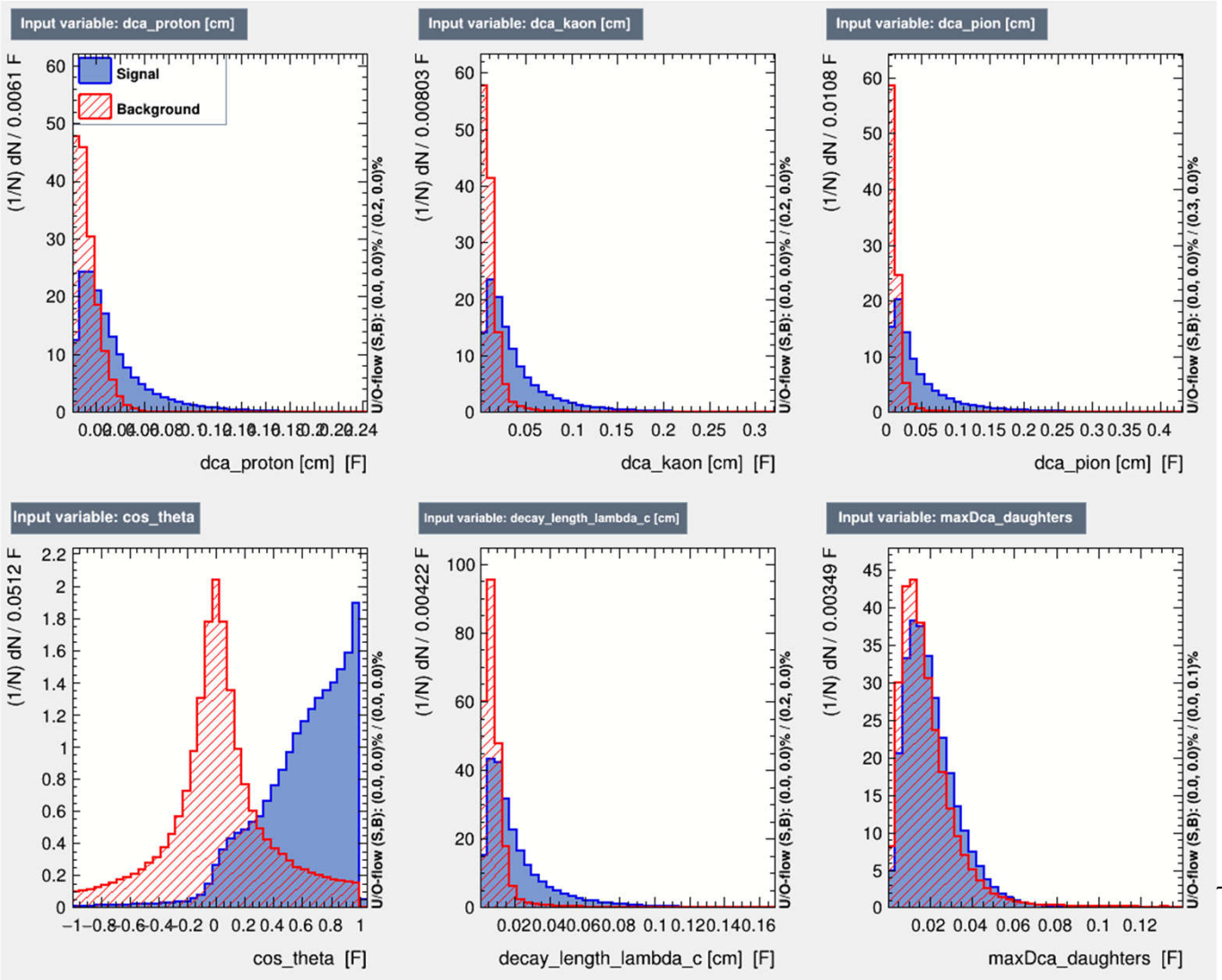


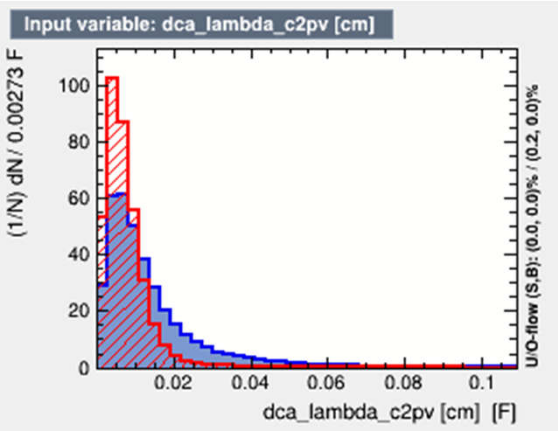


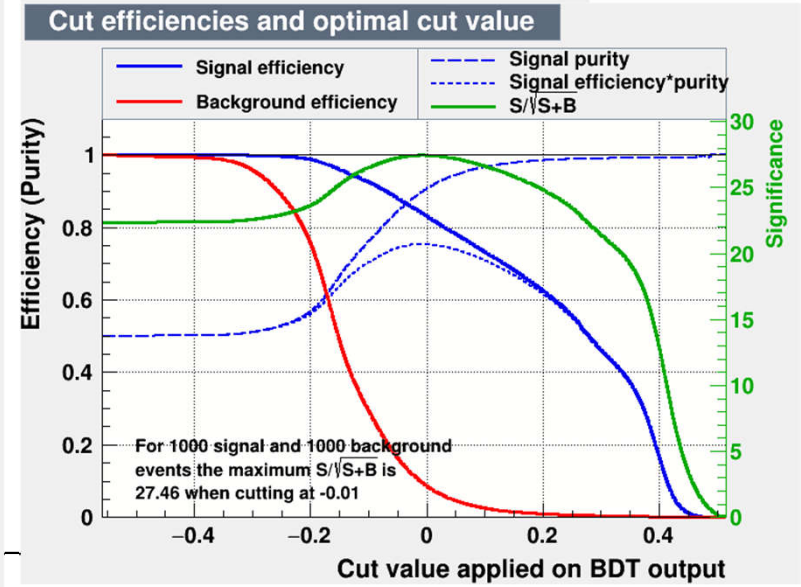
TMVA Performance(e-D)



TMVA Performance(e-Pb)

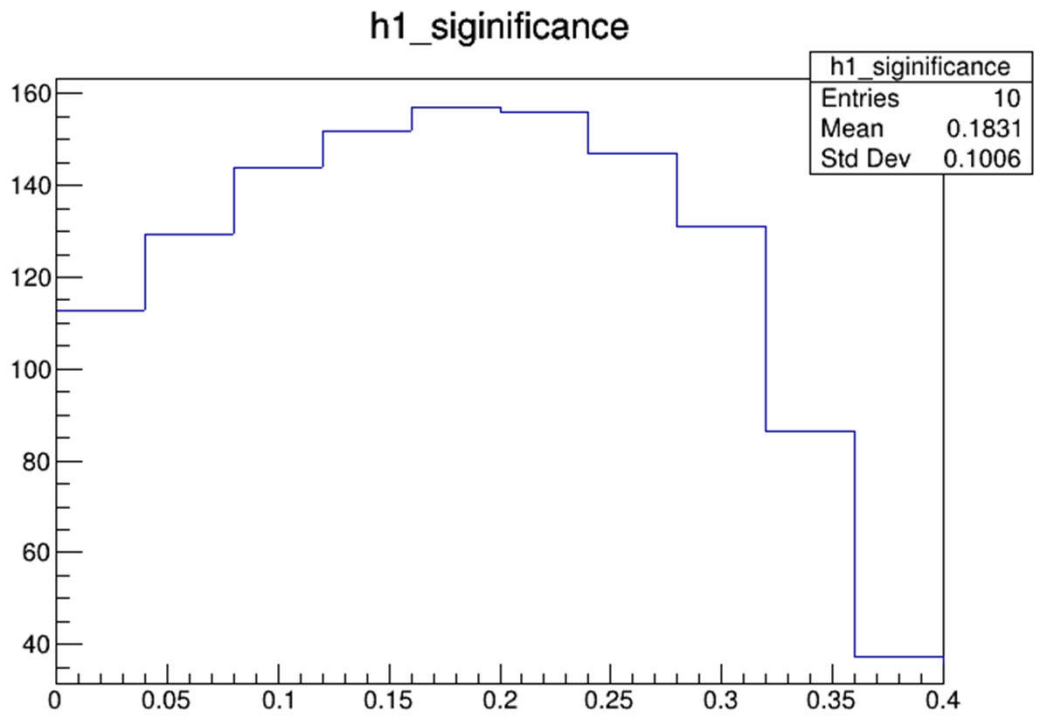




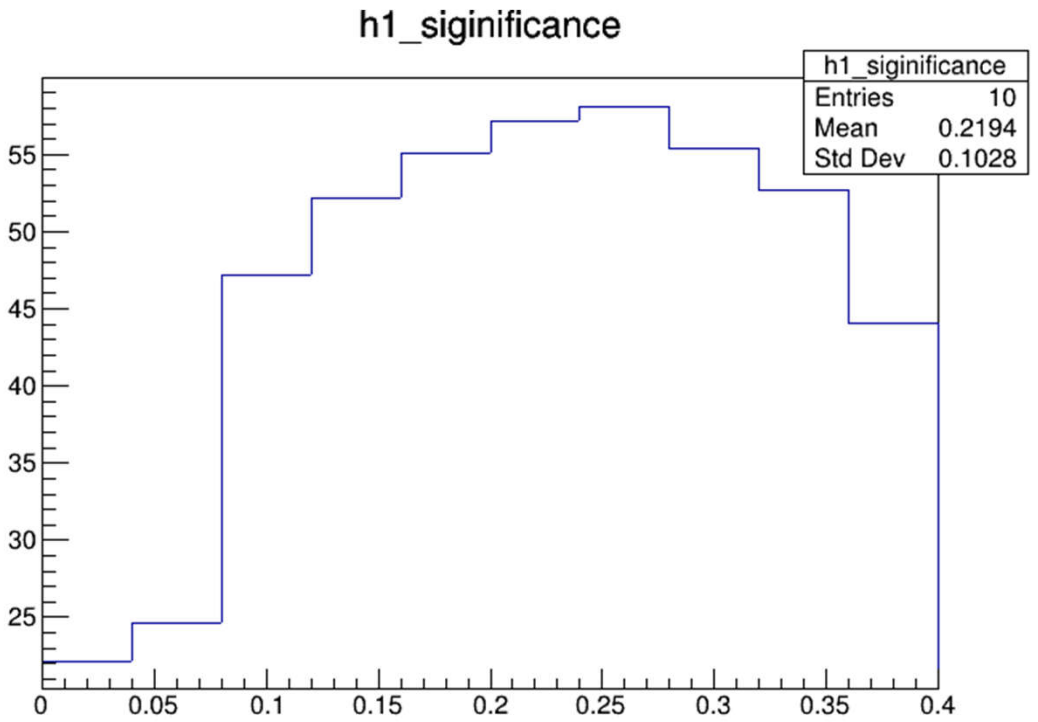


TMVA Tuning

- e-D

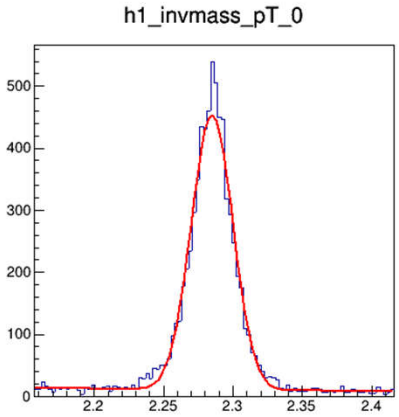


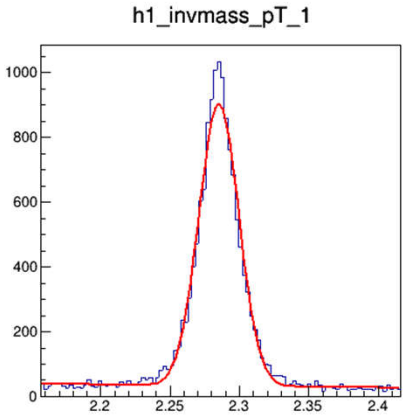
- e-Pb

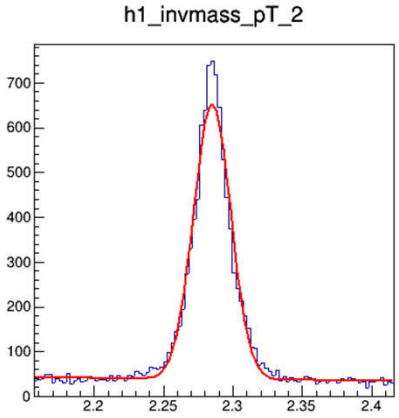


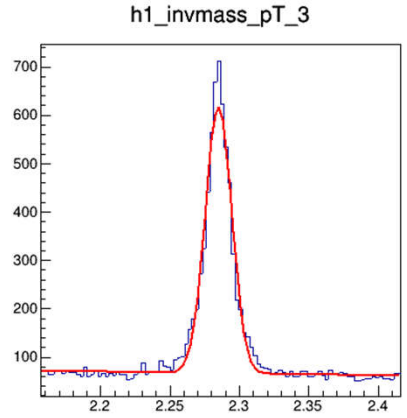
Mass Spectrum

- e-D

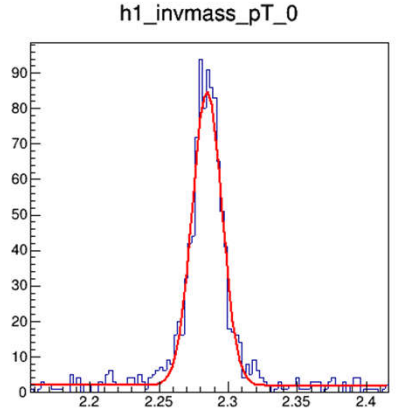


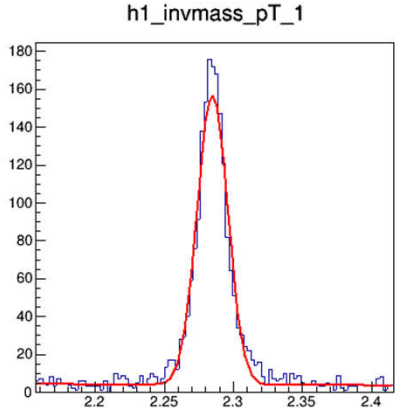


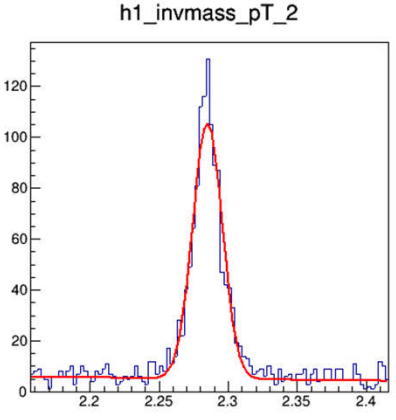


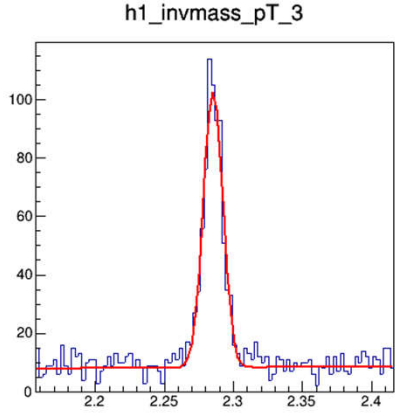


- e-Pb

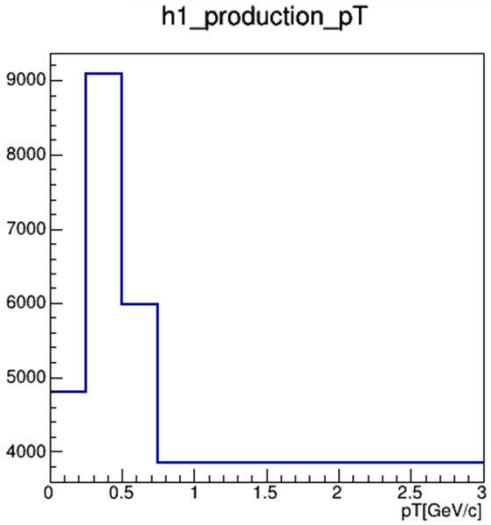


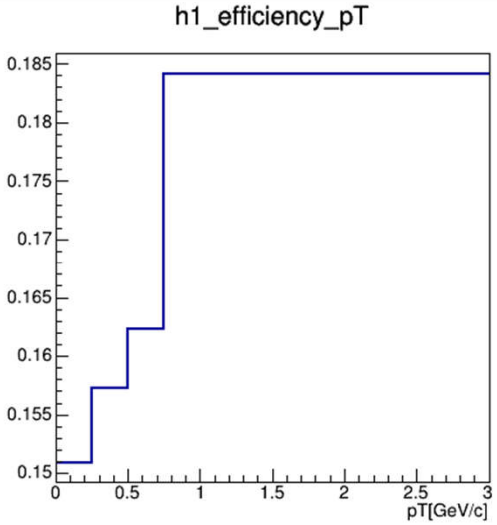


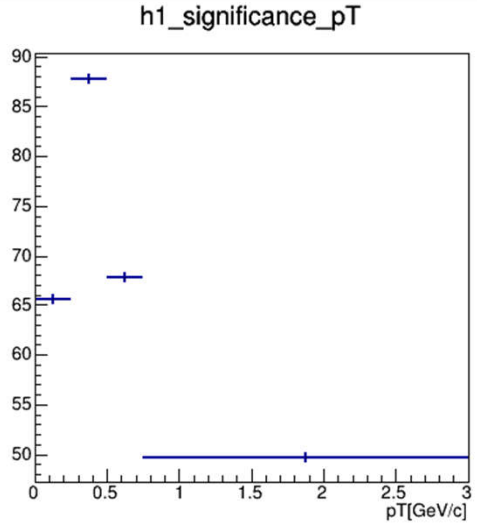




Result







eD

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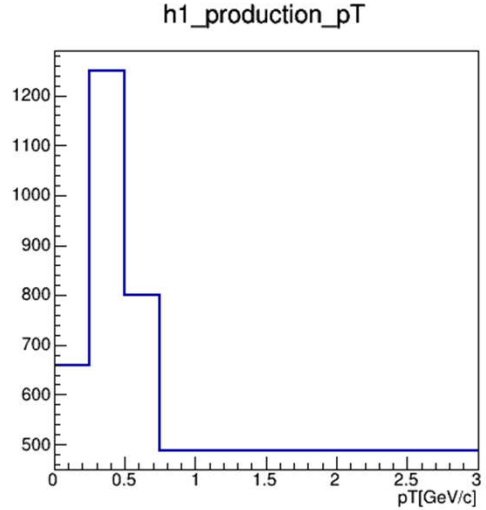

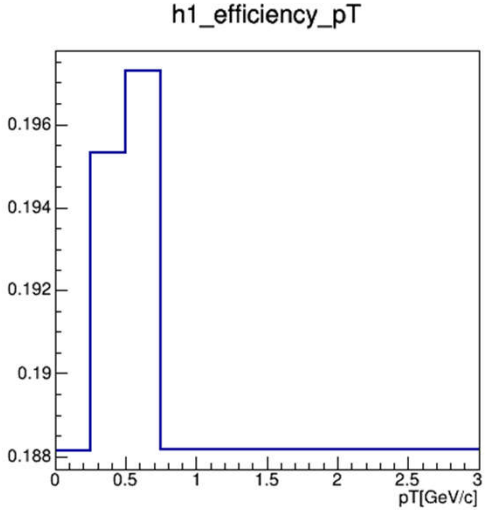

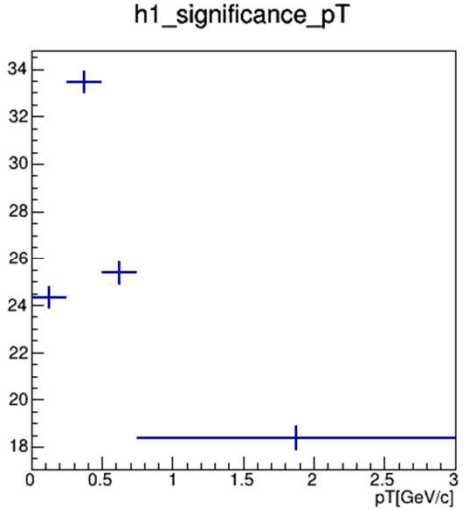

ePb

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