SoLID SIDIS He3 Detection

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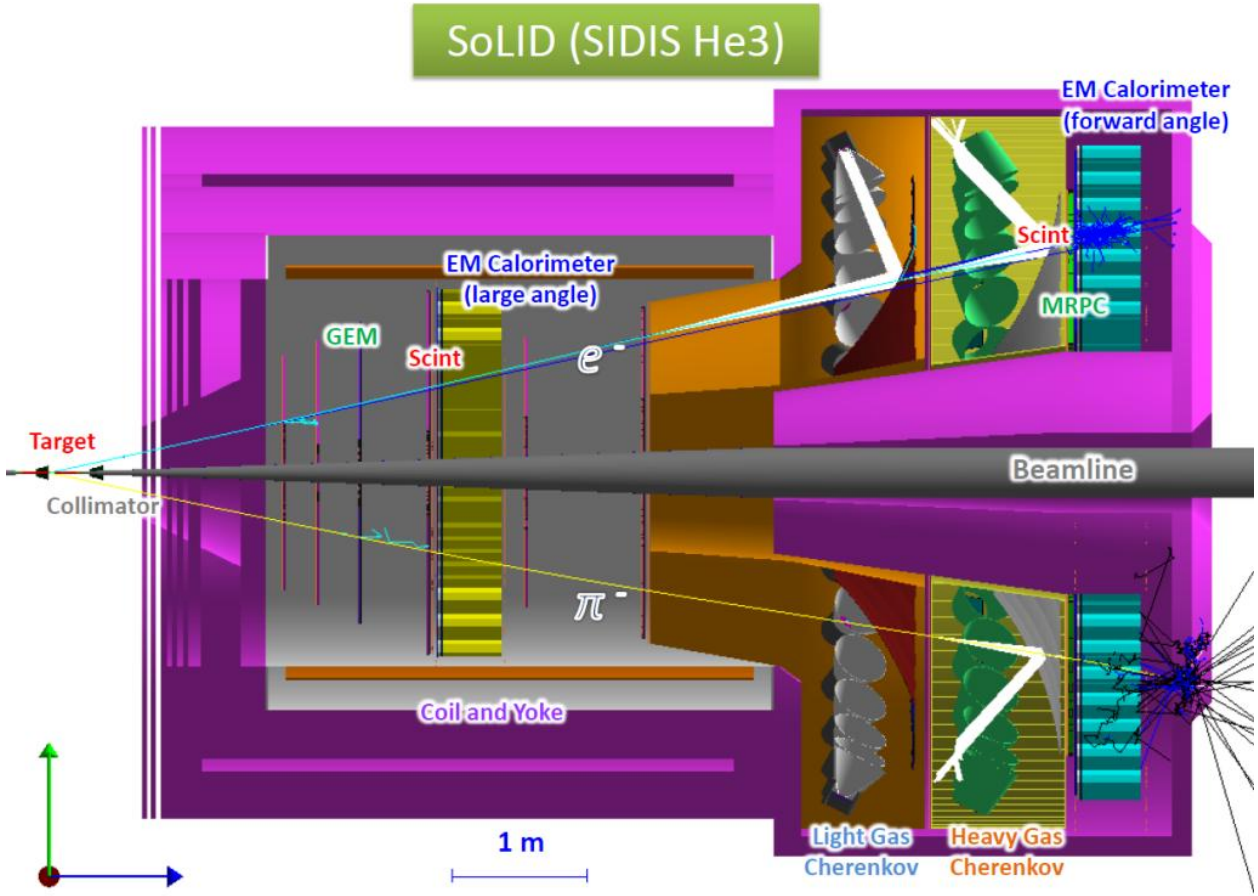
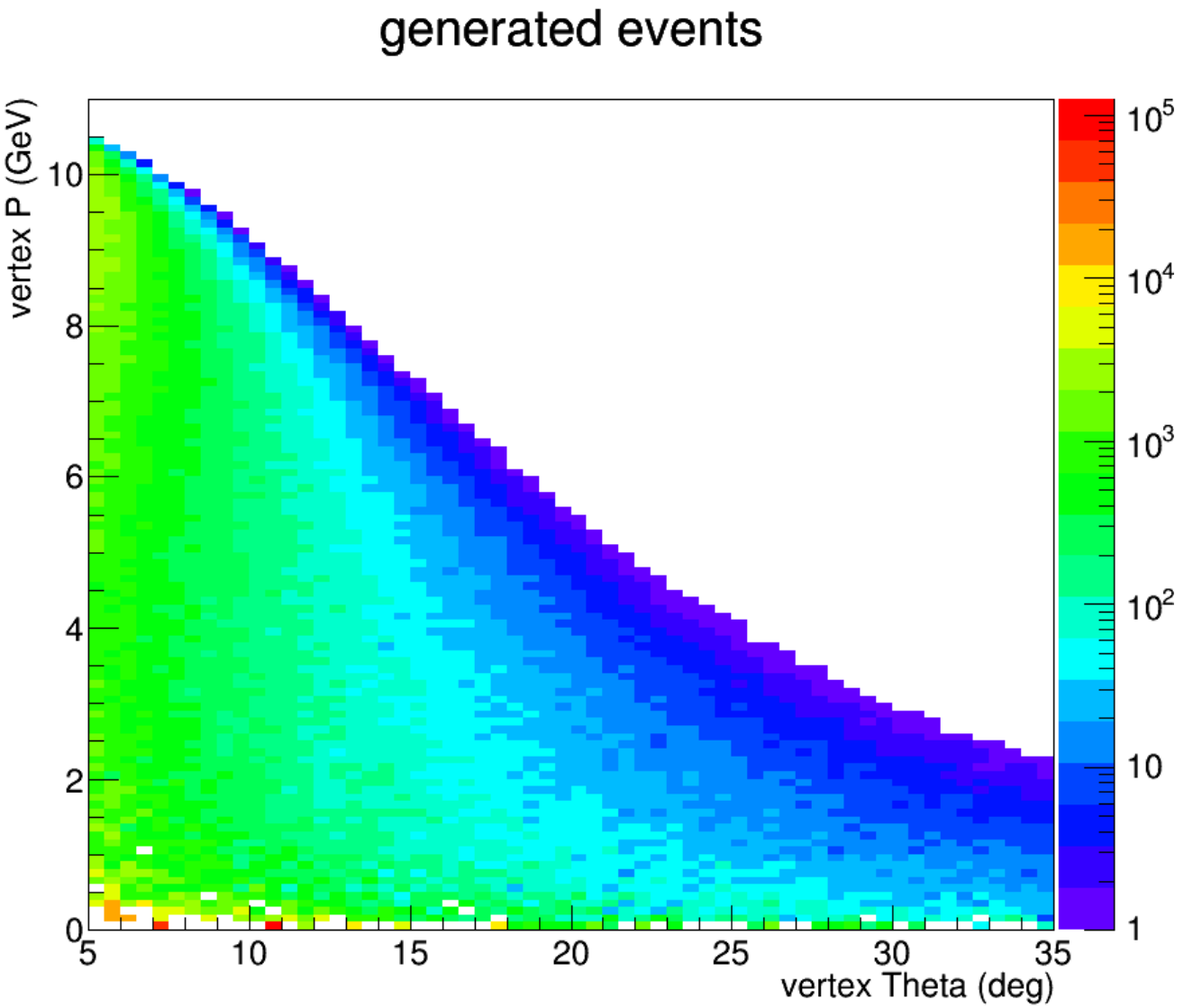
Setup

- Use full fimulation with all sub-systems
- Same output files used for trigger study



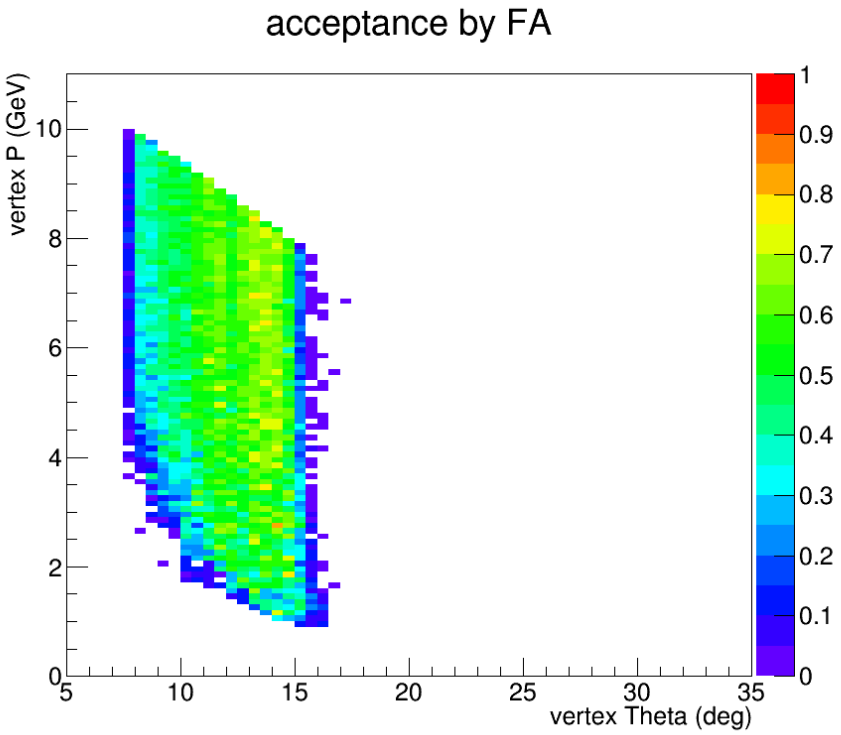
DIS e- generated



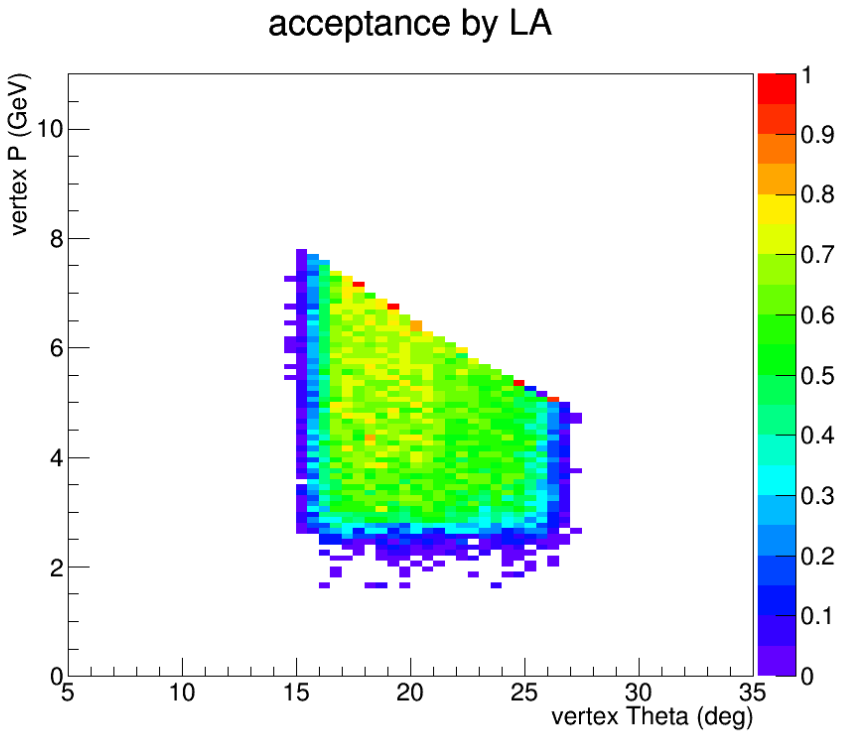
Acceptance of DIS e- (with LGC)

- With SIDIS_He3 trigger condition

FAEC+GEM+FASPD+LGC



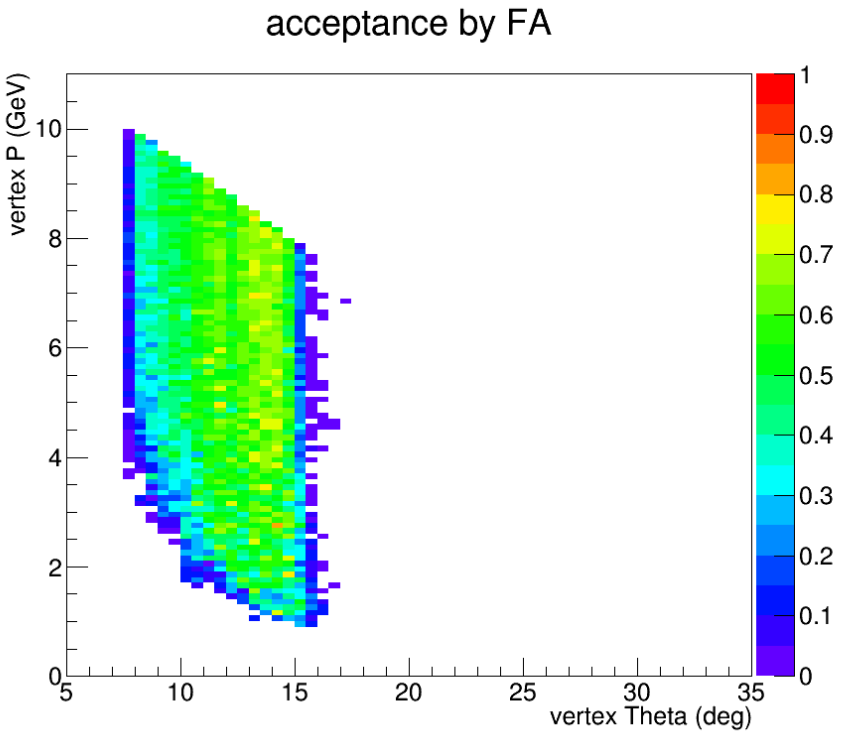
LAEC+GEM+LASPD



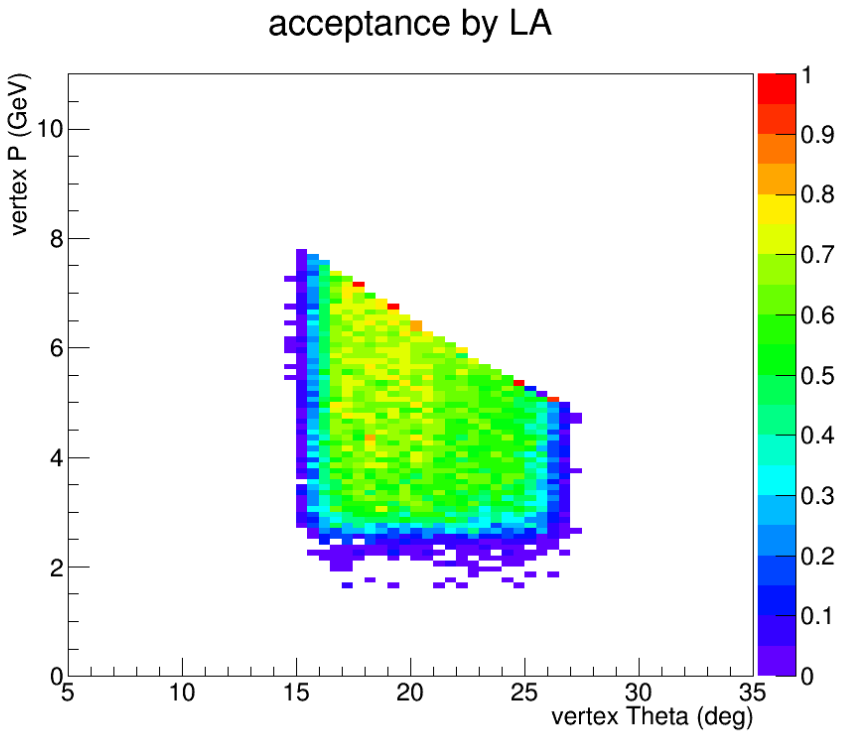
Acceptance of DIS e- (w/o LGC)

- With SIDIS_He3 trigger condition

FAEC+GEM+FASPD (no LGC)



LAEC+GEM+LASPD



Efficiency

- e- at FA: 79%
  - EC (95%) GEM (91%) SPD (98%) LGC (93%)
- e- at LA: 84%
  - EC (95%) GEM (91%) SPD (98%)
- charged pion at FA: 82% (<2.5GeV<) 86%
  - GEM (91%) HGC (95%) MRPC (95%) is about 82%.

These are estimated average efficiency with offline analysis condition, which should be lower than efficiency with trigger condition.
We can study them as individual detectors first, and then use full simulation by turning them on and off.