



Status of the SciGlass barrel electromagnetic calorimeter in DD4hep

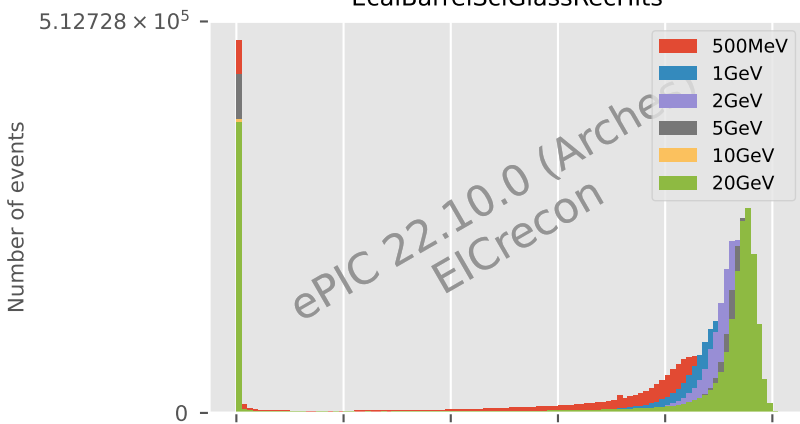
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University of Kentucky

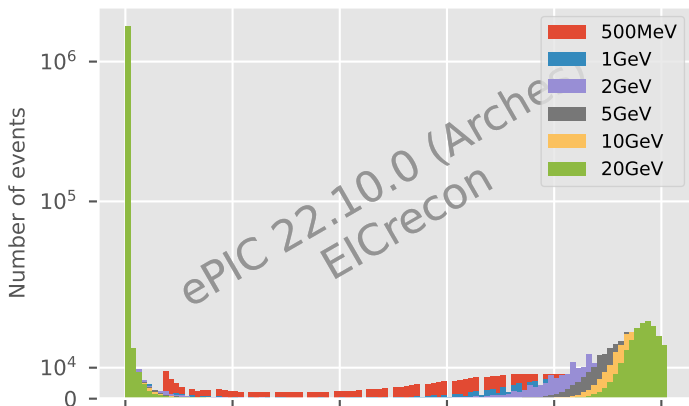
October campaign

- » "October Campaign Single Particle Files Available" – this Monday
- » Particle species are e^- and π^-
- » p_{thrown} = 100 MeV, 200 MeV, 500 MeV, 1 GeV, 2 GeV, 5 GeV, 10 GeV, 20 GeV
- » Three polar angle ranges: $3 - 50^\circ$, $45 - 135^\circ$ and $130 - 177^\circ$
- » Reconstruction with Gaudi+Juggler (Athena) and with JANA2+EICrecon (ePIC)
- » Two ePIC detector configurations "Arches" and "Bruce Canyon"
- » **Certain combinations of energies and angles are currently missing**
Reported on Mattermost

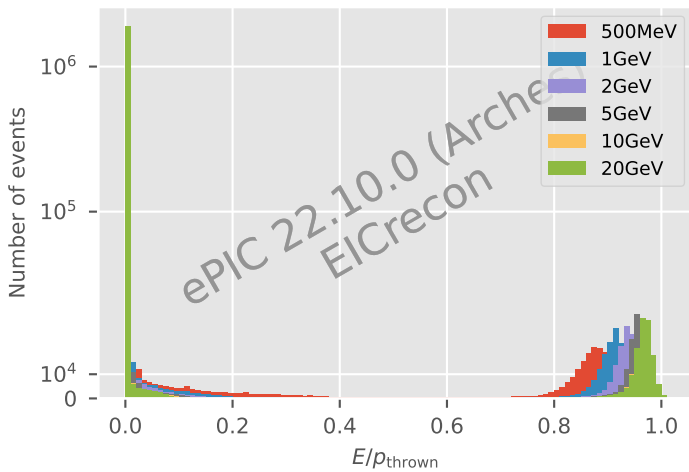
EcalBarrelSciGlassRecHits



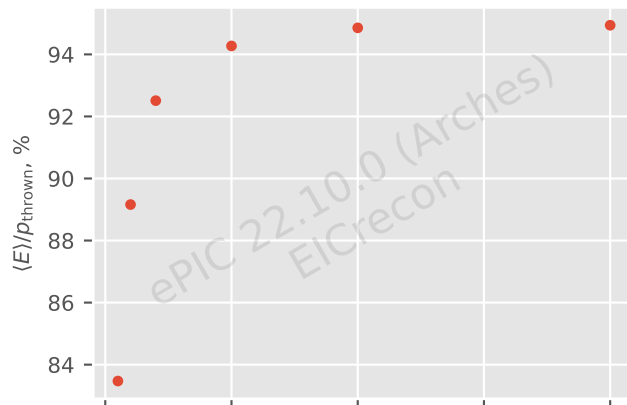
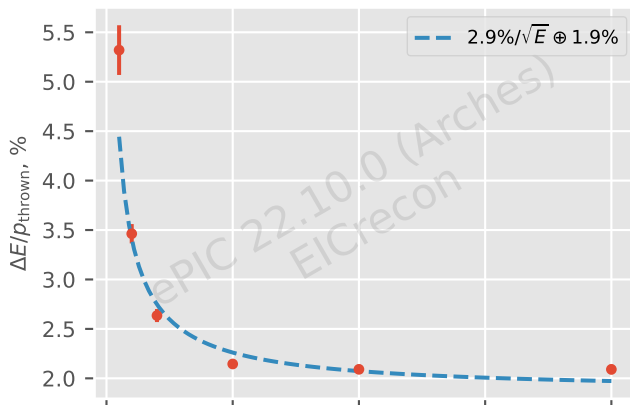
EcalEndcapPReHits



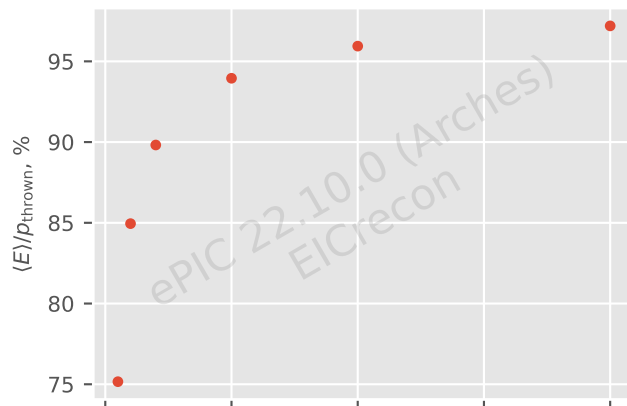
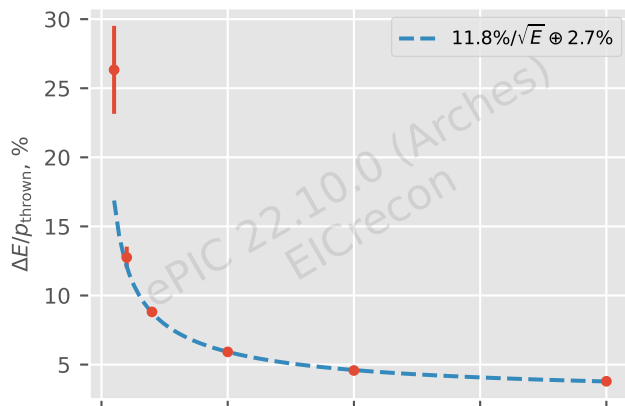
EcalEndcapNReHits



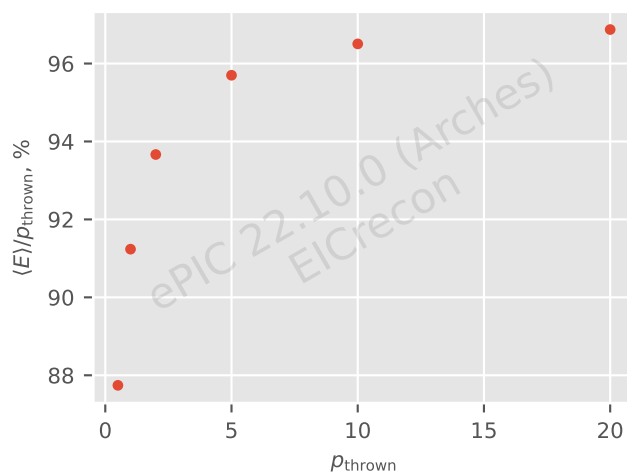
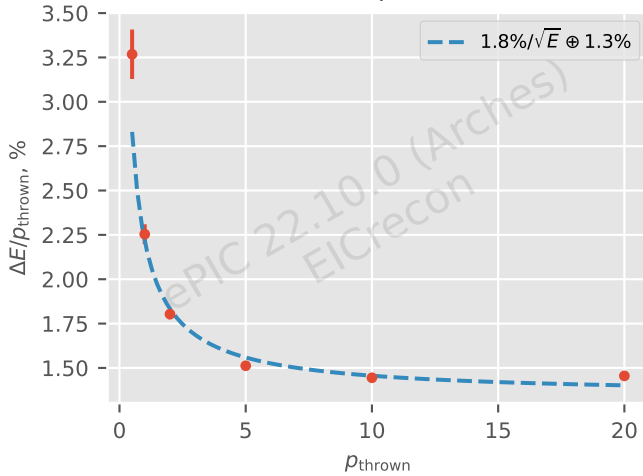
EcalBarrelSciGlassRechits



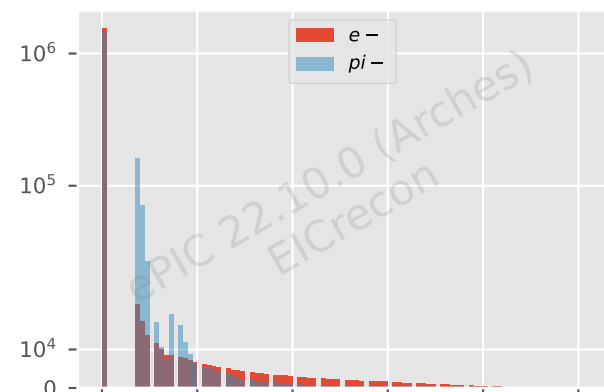
EcalEndcapPRechits



EcalEndcapNRechits



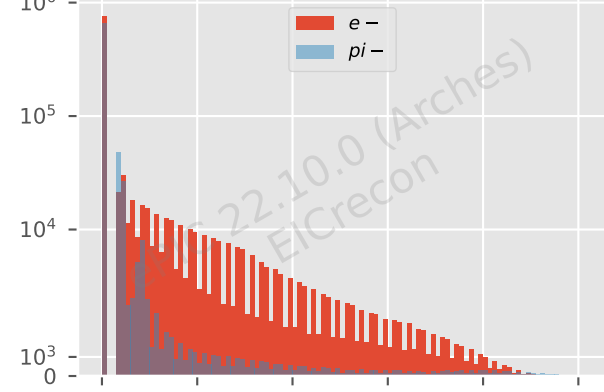
EcalBarrelSciGlassRechits, 100MeV



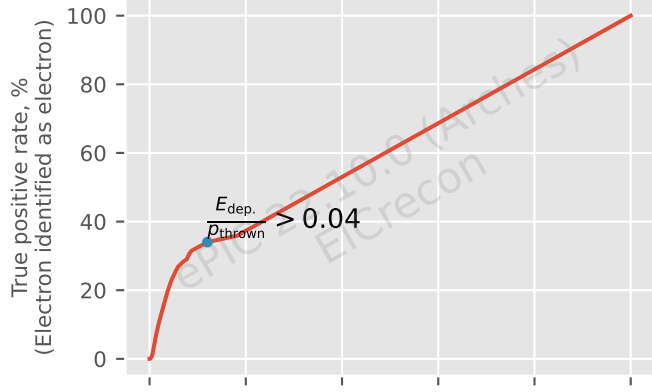
EcalBarrelSciGlassRechits, 100MeV



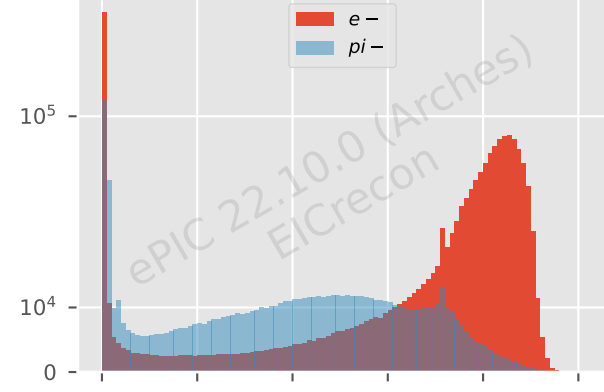
EcalBarrelSciGlassRechits, 200MeV



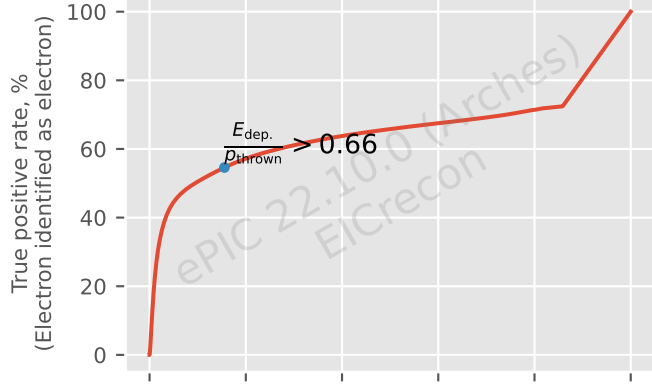
EcalBarrelSciGlassRechits, 200MeV



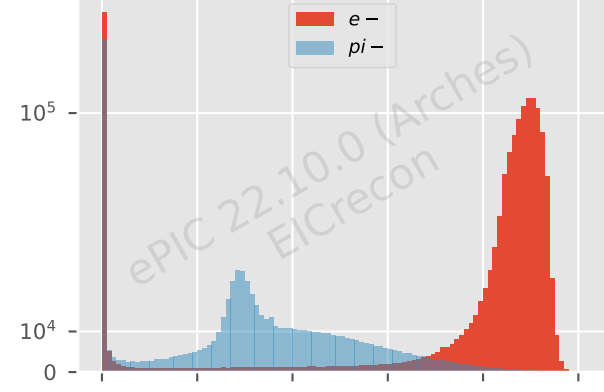
EcalBarrelSciGlassRechits, 500MeV



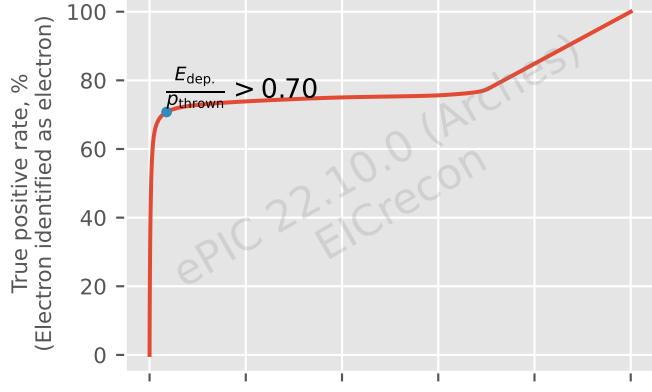
EcalBarrelSciGlassRechits, 500MeV



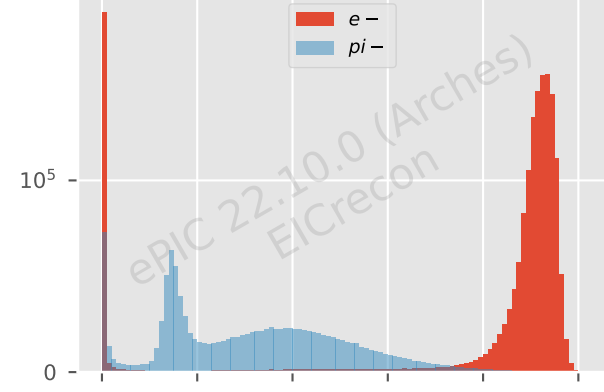
EcalBarrelSciGlassRechits, 1GeV



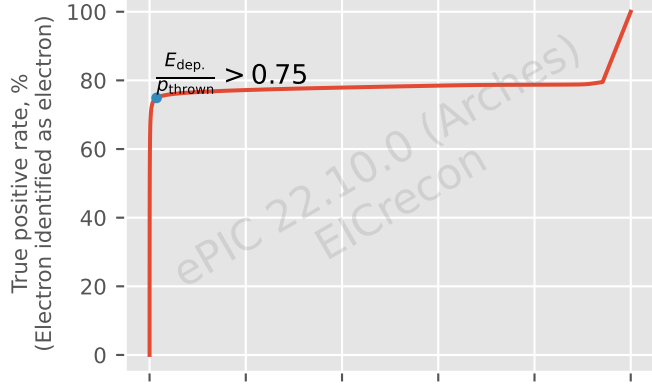
EcalBarrelSciGlassRechits, 1GeV



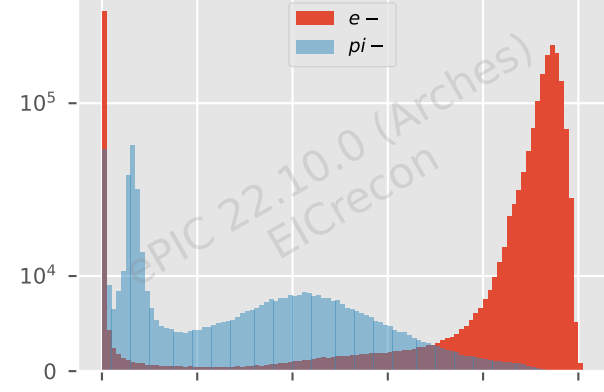
EcalBarrelSciGlassRechits, 2GeV



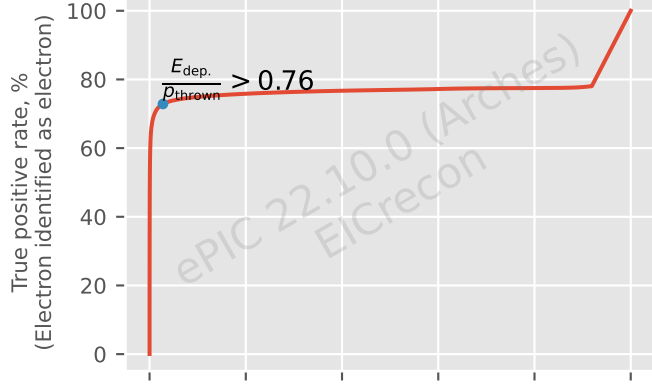
EcalBarrelSciGlassRechits, 2GeV



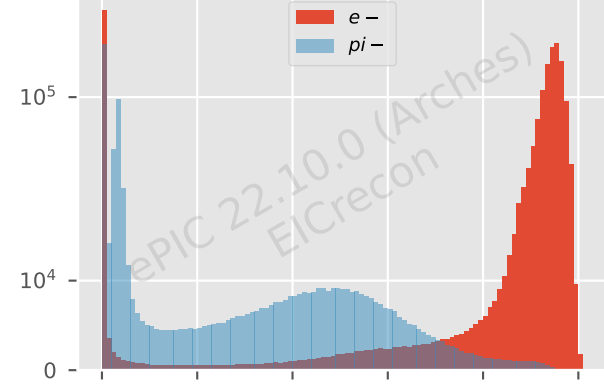
EcalBarrelSciGlassRechits, 5GeV



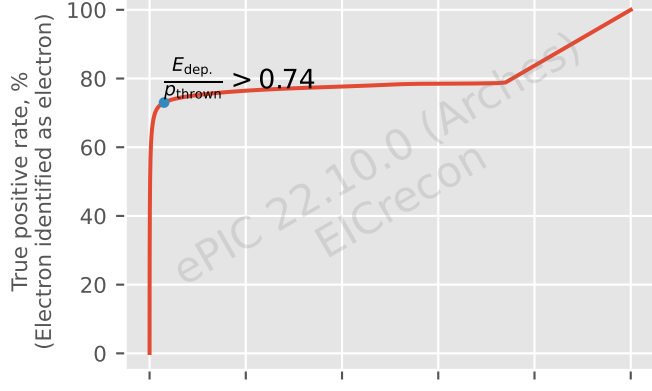
EcalBarrelSciGlassRechits, 5GeV



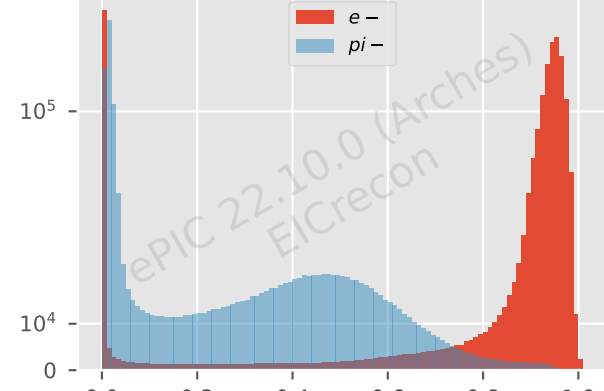
EcalBarrelSciGlassRechits, 10GeV



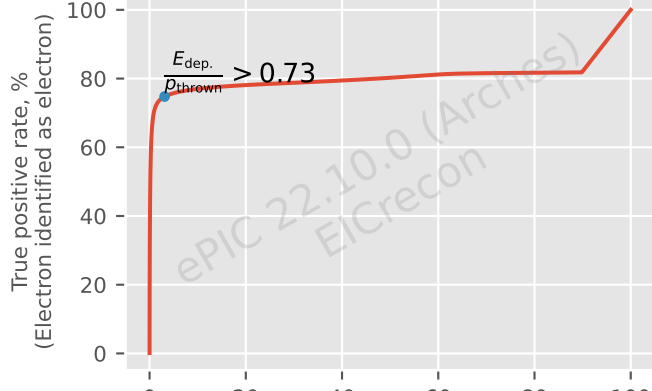
EcalBarrelSciGlassRechits, 10GeV



EcalBarrelSciGlassRechits, 20GeV



EcalBarrelSciGlassRechits, 20GeV



ρ_{i^-} rejection factor

10^1

0.0

2.5

5.0

7.5

10.0

12.5

15.0

17.5

20.0

ρ_{thrown}

ePIC 22.10.0 (Arches)
EICrecon

