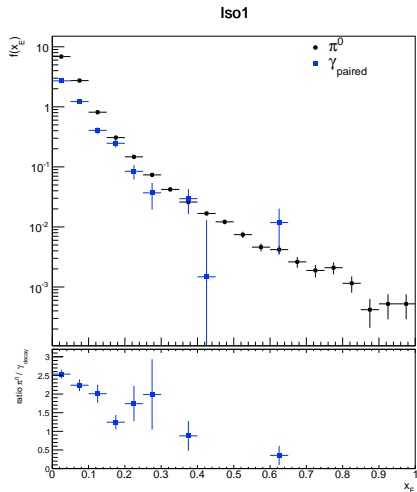


x_E distribution : pp at 7 TeV
 π^0 and γ_{decay}

Astrid Vauthier

31 octobre 2014

x_E distribution : π^0 vs γ_{paired} in data



- This is not what I expected
- For now I don't find a mistake in my code or an explanation in this sense

x_E distribution : π^0 vs γ_{single} in simu

- It's sensible to think that $f(x_E)^{\pi^0} = f(x_E)^{\gamma_{single}}$: The detected γ carries almost all the p_T of the π^0
- We can't prove that with the data but it is possible with simu

Code plan : (to be added in AliAnaParticleHadronCorrelation)

```
Int_t pdg = particle->GetPdgCode();
if(pdg == 22)
{
    int momPdg = particle->GetFirstMother()->GetPdgCode()
    if(momPdg == 111)
    {
        for(int i = 0; i < nTracks; i++)
        {
            TParticle *particle2 = stack->Particle(i);
            if(particle2->GetLabel() == particle->GetLabel()) continue;

            int momPdgPart2 = particle2->GetFirstMother->GetPdgCode();
            if(momPdg == momPdgPart2) continue;
            else() kSingle = kTRUE;

        } //Loop on tracks
    } //Mom is Pi0
} //first photon
if(kSingle)
{
    FillSingleDecayHisto(particle->Pt(), particle->Phi(), particle->Eta(), ptprim, phiprim, etaprim);
    //On the same scheme as FillChargedMCCorrelationHistograms(...)
}
```

BACKUP

x_E distribution : π^0 vs γ_{paired} in data

All :

Iso0

