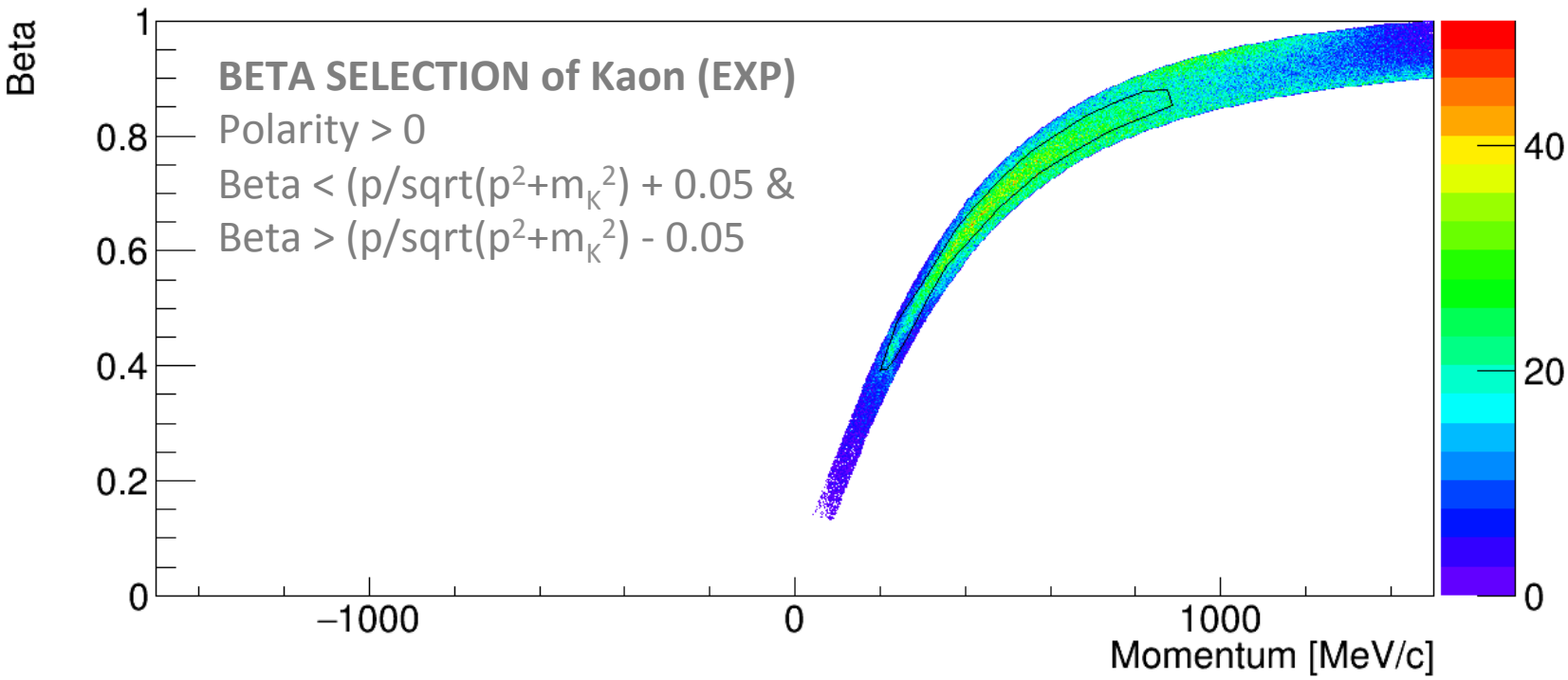
Finial EXP dEdx (Jul14)

Joana Wirth

PID Selection Procedure

EXP: π^-W (w.o. energy loss correction)
System 0

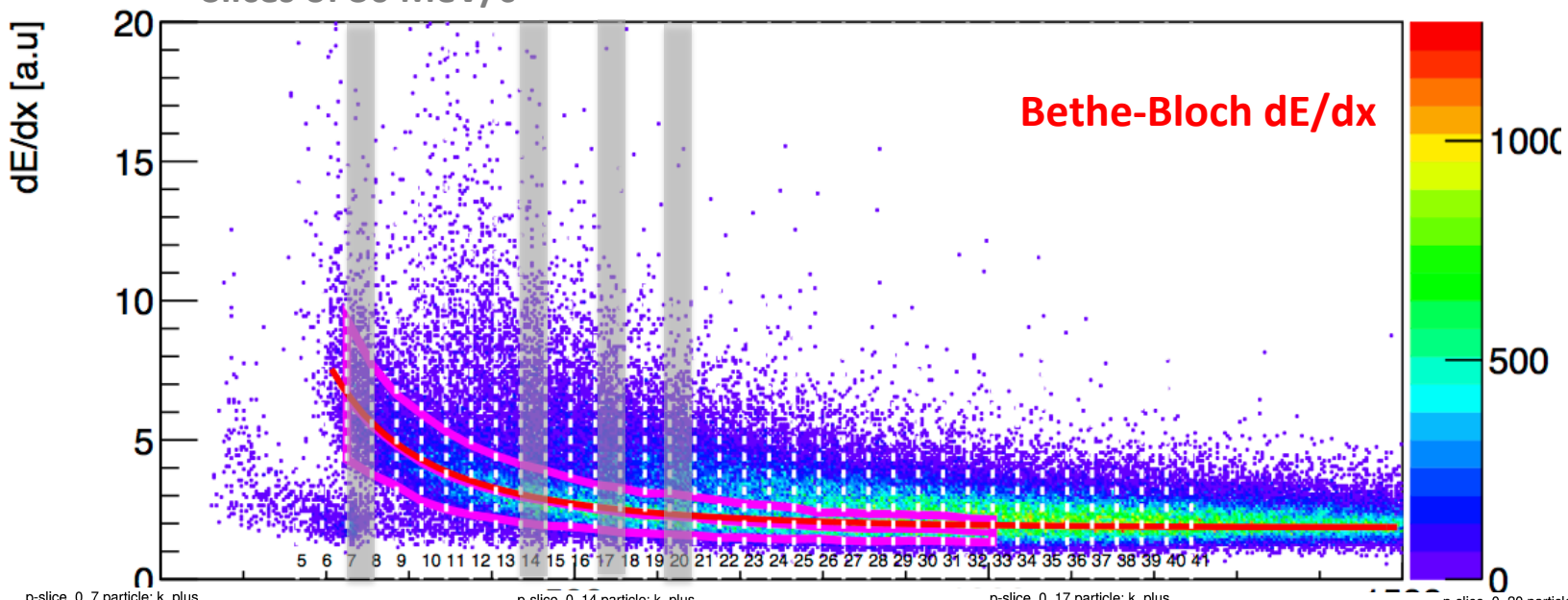


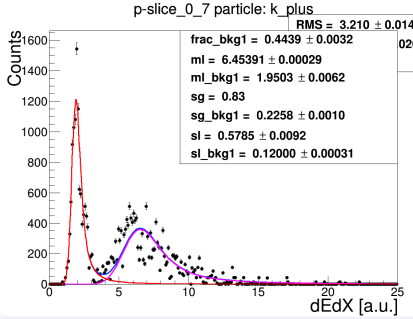
PID Selection Procedure (new clean)

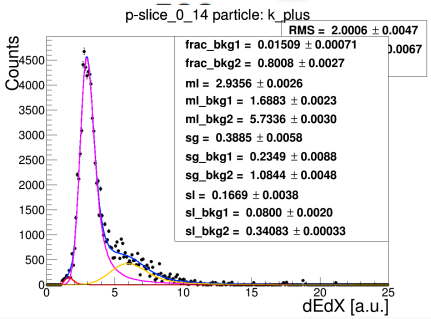
EXP: π^-W (w.o. energy loss correction)
System 0

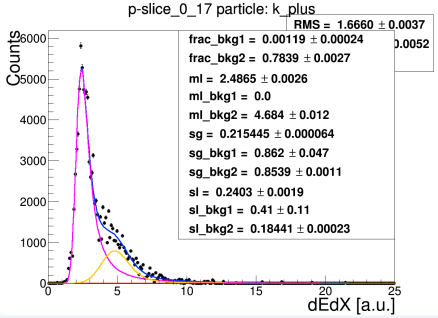
Slices of 30 MeV/c

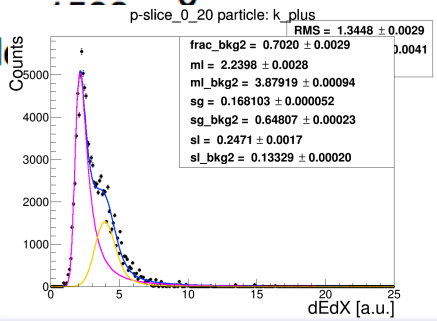
BETA SELECTION of Kaon







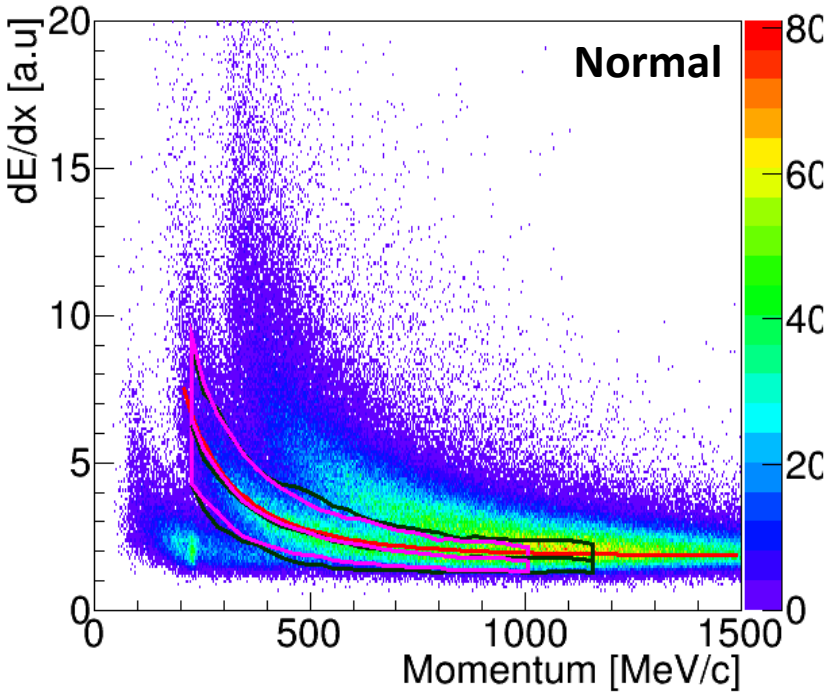




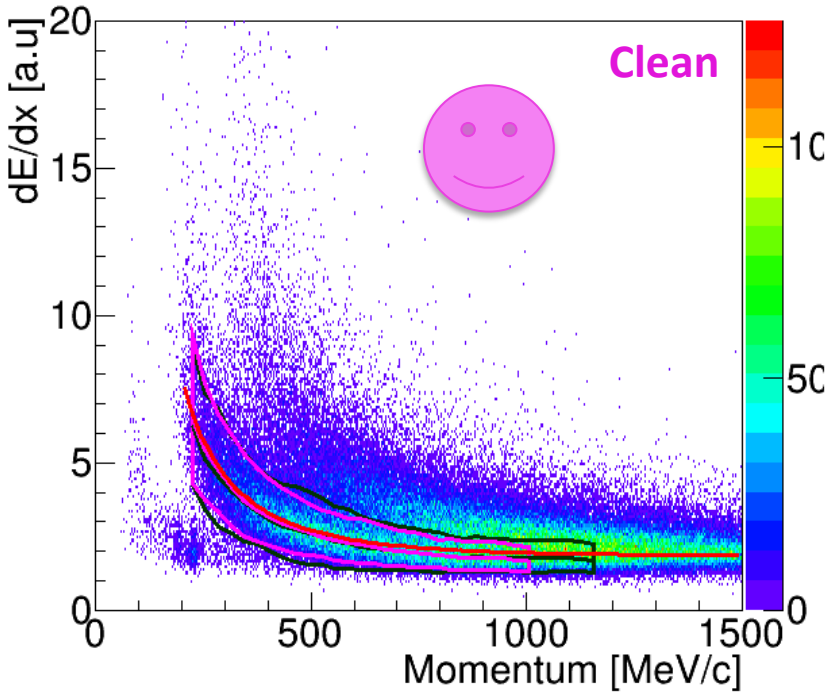
PID Selection Procedure

GiBUU & EXP: π^-W (w.o. energy loss correction)
System 0

BETA SELECTION of Kaon



BETA SELECTION of Kaon



Gauss: Detector resolution
Landau: dE/dx

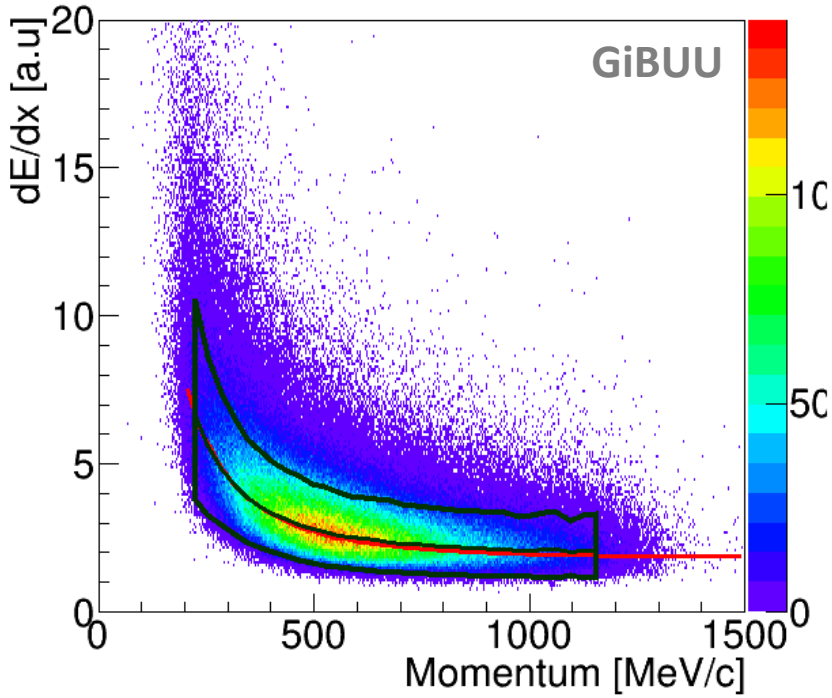
$\otimes$ **Langaus**

Pion: Langaus Proton: Langaus
Kaon: Langaus **$\sigma = \mathrm{sqrt}(sg^2+sl^2)$**

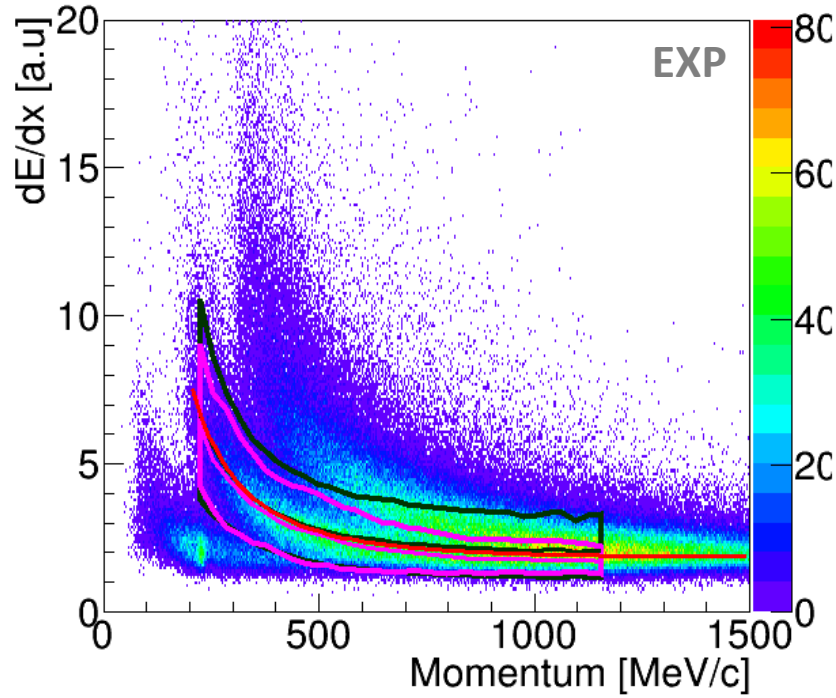
PID Selection Procedure (normal)

GiBUU & EXP: π^-W (w.o. energy loss correction)
System 0

SELECTION of Kaons: PID



BETA SELECTION of Kaon



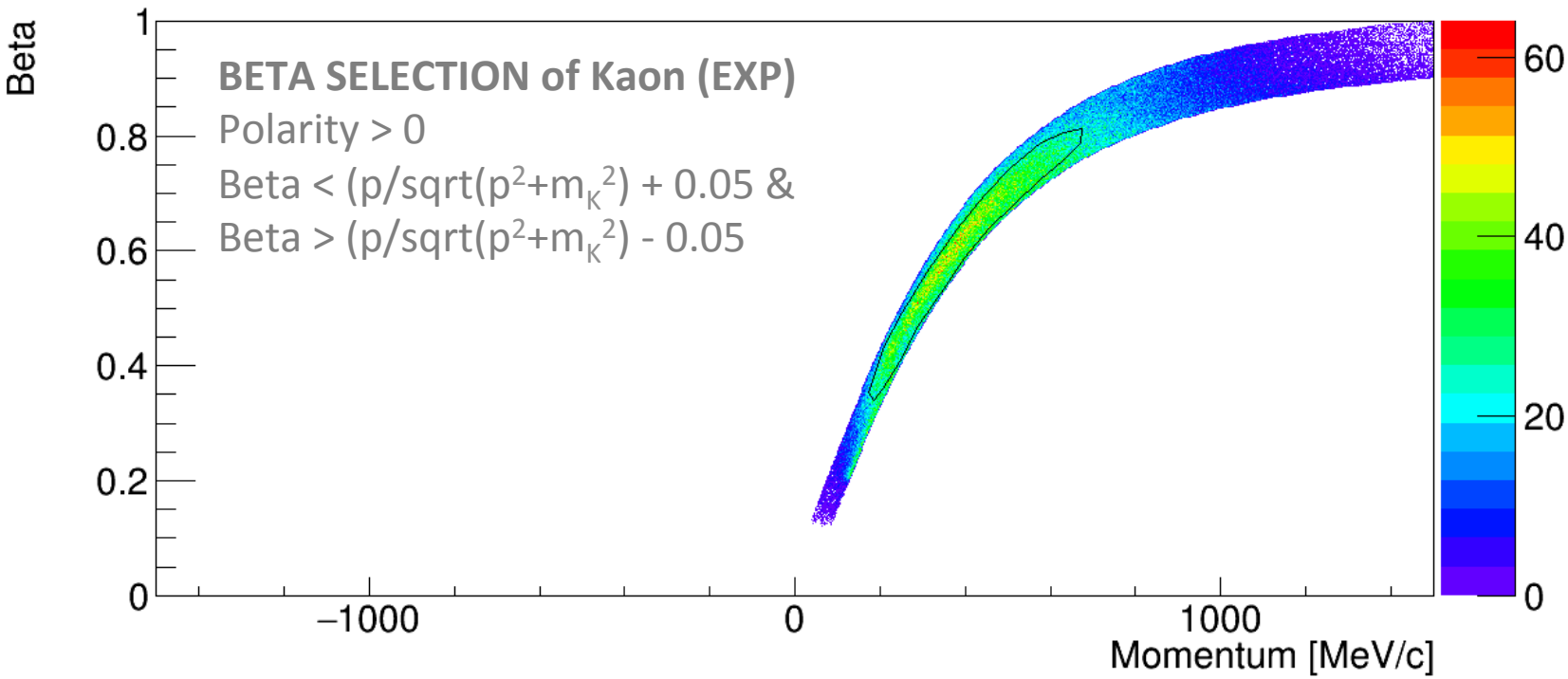
Gauss: Detector resolution
Landau: dE/dx

$\otimes$ **Langaus**

Pion: Langaus Proton: Langaus
Kaon: Langaus **σ = sqrt(sg^2+sl^2)**

PID Selection Procedure

EXP: π^-W (w.o. energy loss correction)
System 1

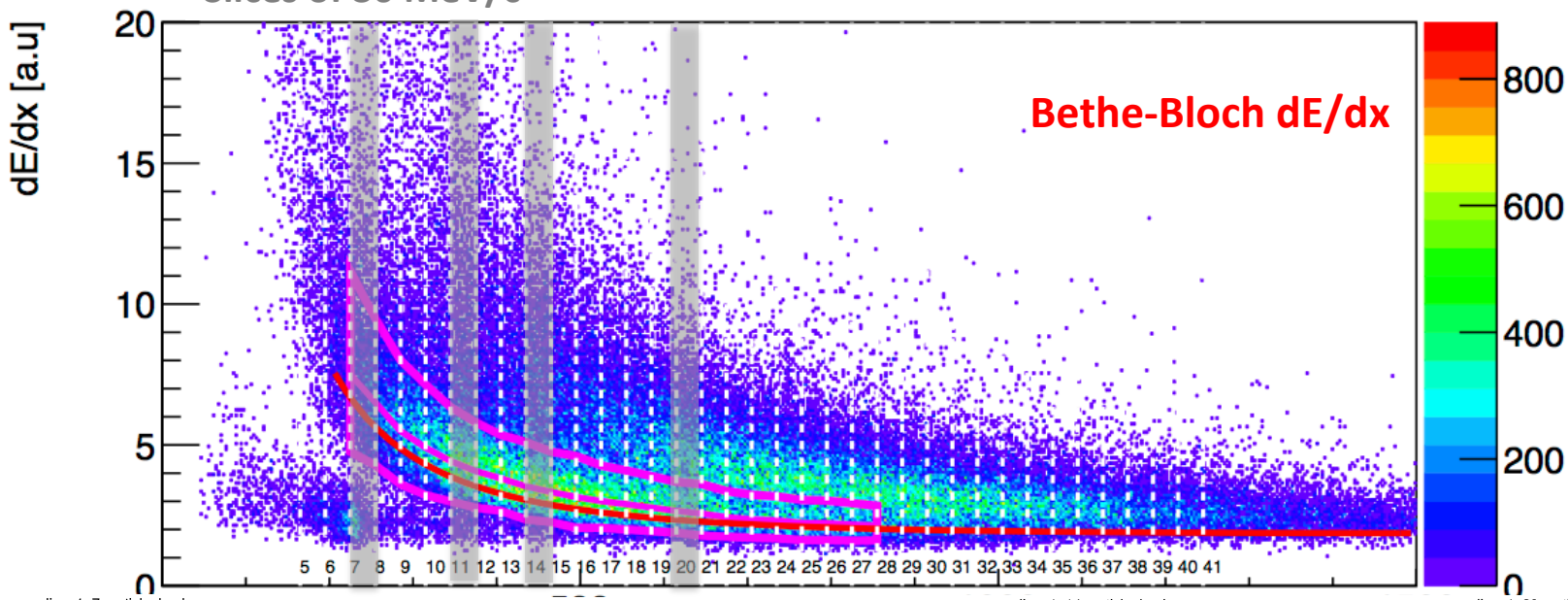


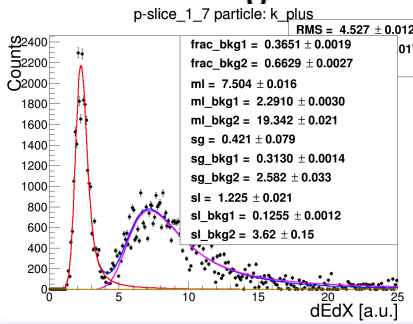
PID Selection Procedure

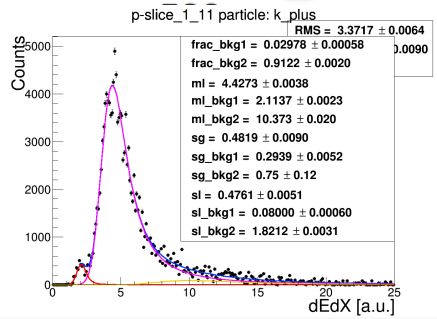
EXP: π^-W (w.o. energy loss correction)
System 1

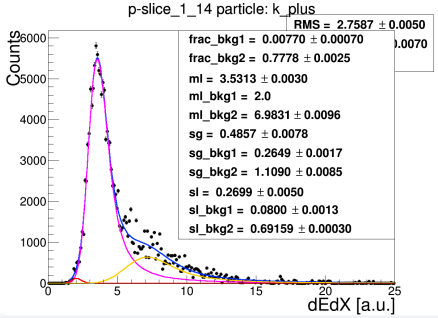
Slices of 30 MeV/c

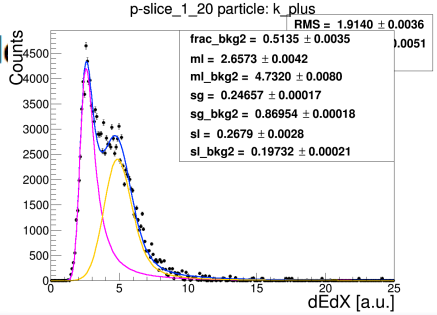
BETA SELECTION of Kaon







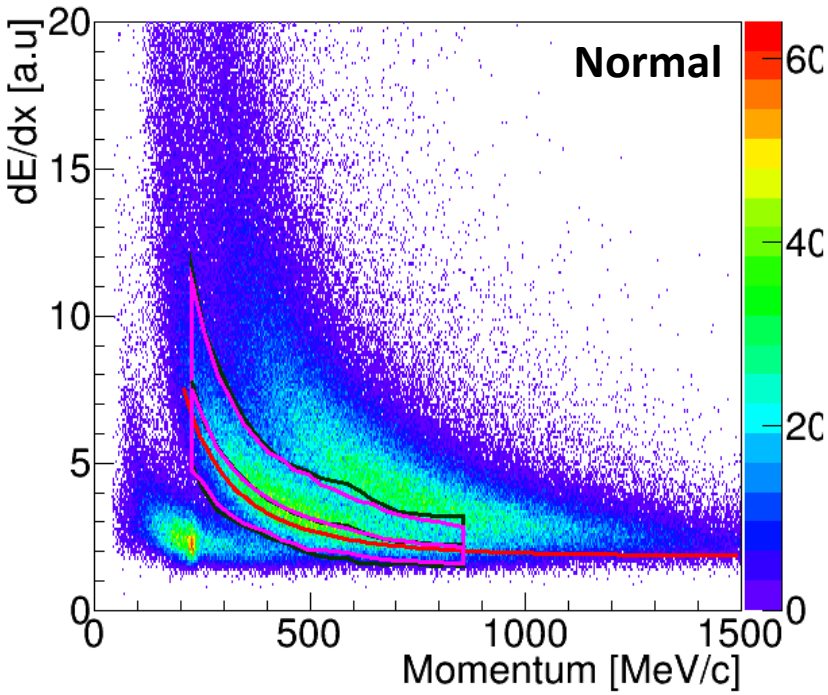




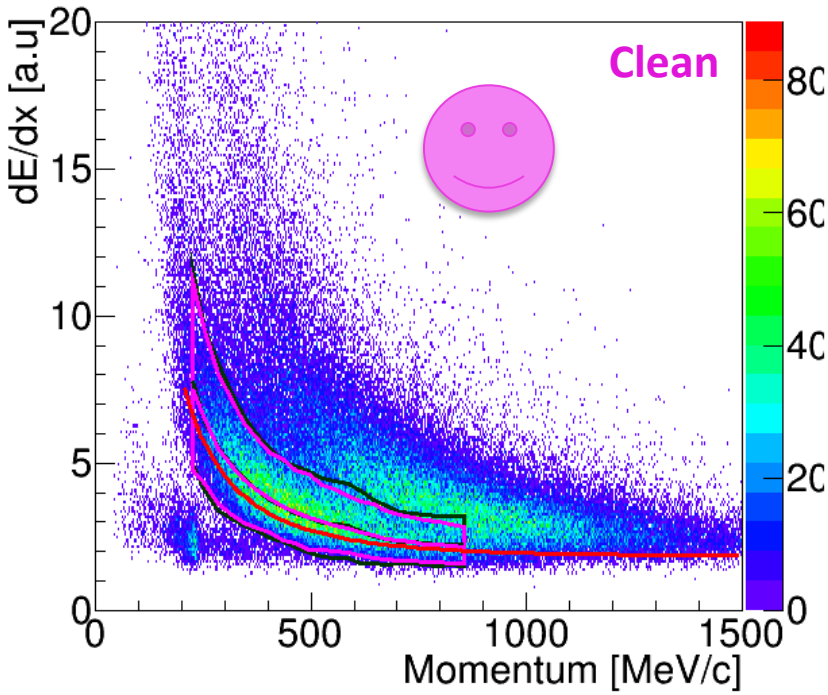
PID Selection Procedure

GiBUU & EXP: π^-W (w.o. energy loss correction)
System 1

BETA SELECTION of Kaon



BETA SELECTION of Kaon



Gauss: Detector resolution
Landau: dE/dx

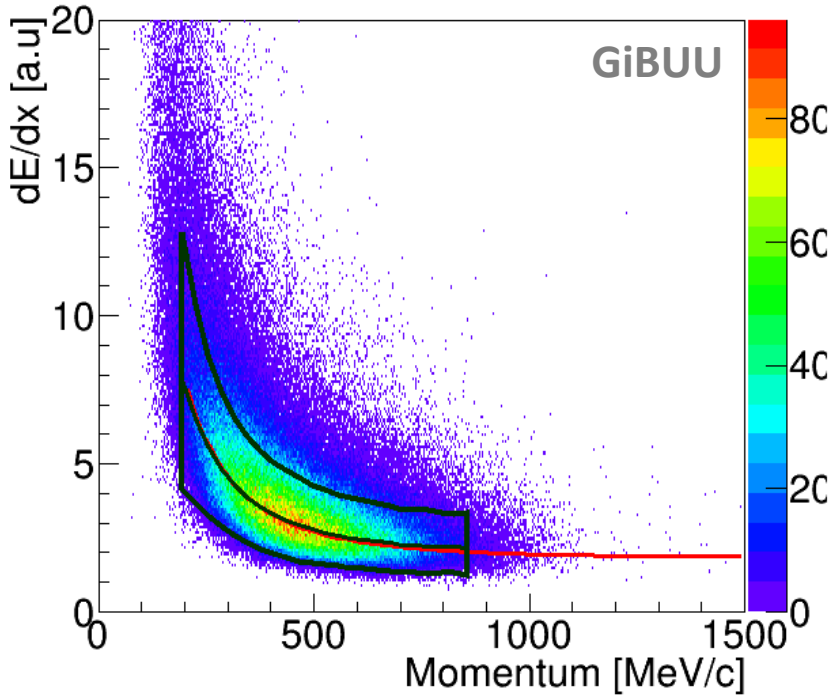
$\otimes$ **Langaus**

Pion: Langaus Proton: Langaus
Kaon: Langaus **$\sigma = \mathrm{sqrt}(sg^2+sl^2)$**

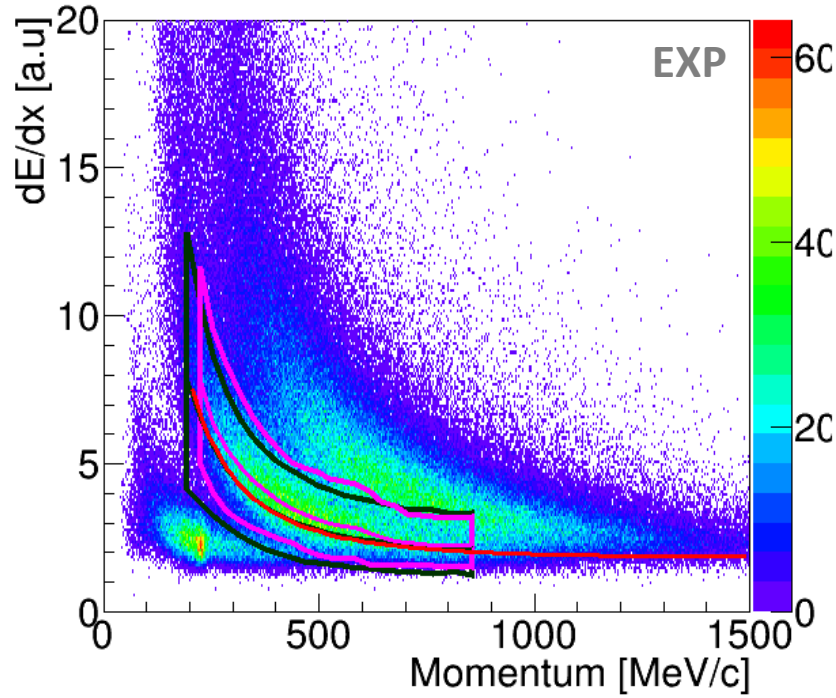
PID Selection Procedure (normal)

GiBUU & EXP: π^-W (w.o. energy loss correction)
System 1

SELECTION of Kaons: PID



BETA SELECTION of Kaon



Gauss: Detector resolution
Landau: dE/dx

$\otimes$ **Langaus**

Pion: Langaus Proton: Langaus
Kaon: Langaus **$\sigma = \mathrm{sqrt}(sg^2+sl^2)$**

Clean Sample: selectHadrons

```
selectHadrons(pcand){
if (pcand->isFlagAND(4,
        Particle::kIsAcceptedHitInnerMDC,
        Particle::kIsAcceptedHitOuterMDC,
        Particle::kIsAcceptedHitMETA,
        Particle::kIsAcceptedRK
        )
&&
pcand->getChi2() < 500
) return kTRUE

if (pcand->getMetaQuality() > 3  || pcand->getMetaMatchQuality() < 0) return kFALSE
if(!HParticleTool::isGoodMetaCell(pcand,4,kTRUE))                      return kFALSE
if (pcand->getBeta() < 0  || pcand->getTof() > 60)                     return kFALSE
}
```

Clean Sample: evtInfo

```
HParticleEvtInfo* evtInfo=0;
evtInfo = HCategoryManager::getObject(evtInfo,evtInfoCat,0);

if (evtInfo&&!evtInfo->isGoodEvent(     Particle::kIsGoodTrigger|
                                        Particle::kIsVertexClust|
                                        Particle::kIsVertexCand|
                                        Particle::kIsGoodSTART|
                                        Particle::kIsNoPileUpSTART
)) continue;
```