
Subject: Re: TPC digitization blocks everything for too many cluster events

Posted by [Malgorzata Gumberidze](#) on Wed, 16 Jun 2010 16:29:00 GMT

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Hi,

So what i have done is to run simulation (pgun) for positrons with the momentum range 0.15- 5 GeV/c . For one of the event, e.g. 246, simulations takes 6 minutes. This is not the worst case of event. Here is printout which i'm getting on the screen. in addition i'm attaching plot which is showing amplitude of the sample: PndTpcSample.famp()

```
-----  
----- PndTpcDigiPar -----  
-- Context/Purpose: PndTpcDefaultContext
```

```
-----  
PndTpcGasFile: Int_t 0  
EField: Double_t 400  
AttachFlag: Int_t 0  
LogitudinaldiffusionFlag: Int_t 1  
TransversediffusionFlag: Int_t 1  
DriftDistortionFlag: Int_t 0  
zGem: Double_t -40  
zMax: Double_t 110  
Gain: Double_t 4000  
Supression: Double_t 0.001  
Spread: Double_t 0.02  
MinSignalAmp: Double_t 10  
rMin: Double_t 15.5  
rMax: Double_t 41.5  
PadPlaneFile: Int_t 24  
PadShapeFile: Int_t 14  
PadShapeRange: Double_t 0.5  
PadShapeStep: Double_t 0.02  
PadShapeIntStep: Double_t 0.01  
ADCThreshold: Int_t 10  
ADCMax: Int_t 100000  
ADCBits: Int_t 12  
SamplingFreq: Double_t 40  
T0_wallclock: Double_t -60000  
TimeBits: Int_t 28  
PSAThreshold: Int_t 100  
Shaper_tDiff: Double_t 50  
Shaper_tInt: Double_t 50  
Shaper_tSig: Double_t 2  
TOTPSA: Int_t 1  
GAUSSIANNNOISE: Int_t 0  
GAUSSIANNNOISEAMP: Int_t 0  
Rate: Double_t 0.02  
-----
```

```
PndTpcClusterizer:: 18573 clusters created  
39515 electrons arriving at readout
```

Aggregating drifted electrons into avalanches finished.
39515 Avalanches created
0 aggregations done.
73880 Signals created
PndTpcElectronicsTask::Exec
Building up padmap ...finished. 1094 pads hit
.....
1497 Digis created
PndTpcClusterFinderTask::Exec
387 cluster created containing 1497 digis from 1497
Hit array contains 3 hits
PndEmcMakeCluster, event: 1

Hope it will help you, i can also plot different distributions, but it would be nice if you would be more exact what to plot.

best regards,
gosia

File Attachments

1) [sample.gif](#), downloaded 884 times

