

## **Cosmics Productions::**

>using CMSSW 171  
>.cfg from Kirsten changed only slightly for 17 compatibility.  
"Cosmic\_Underground\_BOFF\_corr\_1BX\_5GeV\_official.cfg."  
>output dump from one of the 5k sets::  
rate = 826 +- 47(stat) +-19(sys) Hz    ie 5K evts =6.053 secs

I have 27K evts.. this is ~32.69 secs worth of running

>For these runs, i am varying the 'delta-eta' or 'eta-window' cut. (0,1,2,3,5,10,20,127). All 6 extrapolations set equivalently. The max/min eta cuts are set to 0 and 127 as appropriate.

## **Questions, Problems, things for me to discover::**

> I get two vals for eta: packed and from pglut addr 15::12 (damn!).. packed one seems to be at least 5 bits.. What is the difference between the two?  
> do i understand all of the ranges? (rank seems much more than 5 bits..)  
> I see lots of mode 8,6 tracks with only one LTC, where is the bug? ..need to ask slava again about his LCT finding code..  
> I am taking "AU mode" <--> track type from Darin's doc. What is mode == 1,5? (not in doc?) I have tracks with these values :)  
> do my rates in any way match Dayong's?  
> I would like to understand the warning "incomplete track"  
> why seemingly no real variation in-'phi-packed' entries?  
> some work to do in understanding shapes of basic plots.

## **Next to-do's**

> Do the errors better (many incorrect use of gaussian approximation in poisson limit)  
> Work out some systems of delta-eta cuts so that i can reduce the rate for each track type (or at least the 3 important ones) by a uniform percentage.