

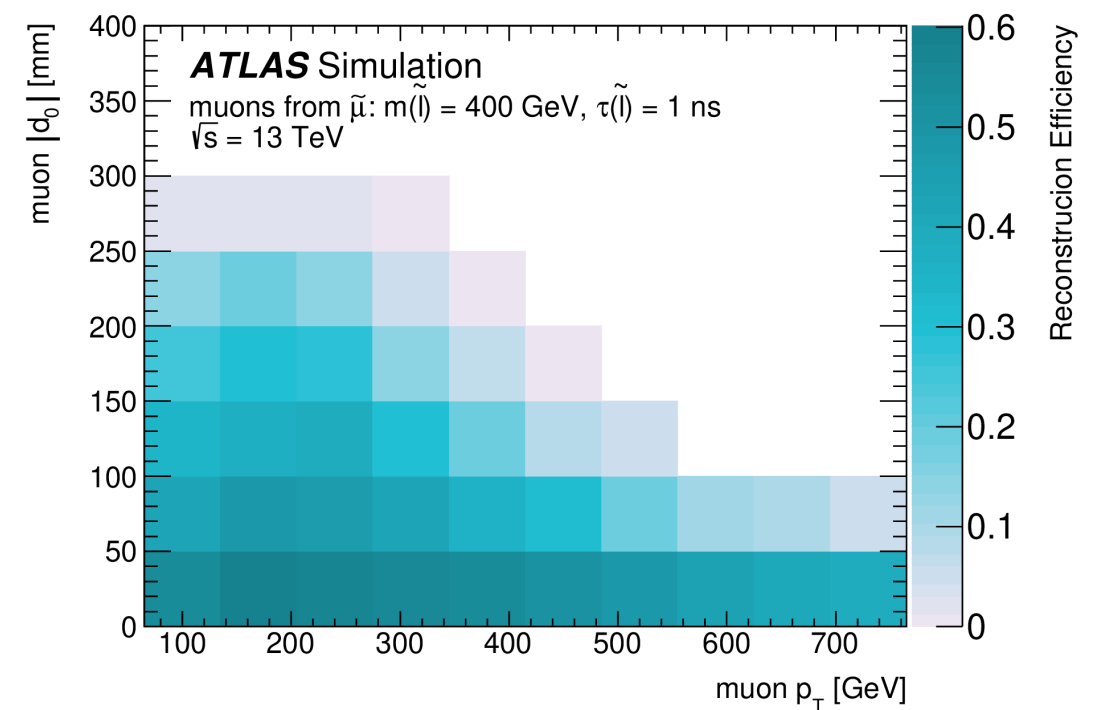
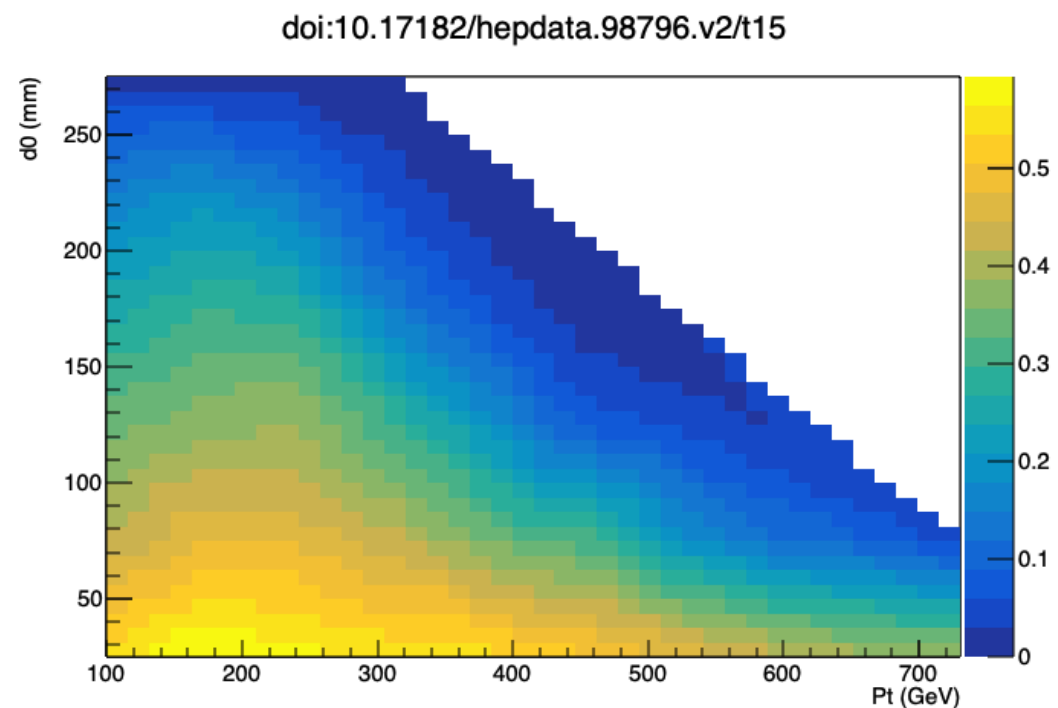
## Alaa Weekly Update, August 14th

### Last week's minutes

- Calculate the uncertainty on the numbers -- either by hand (carefully!) or by a single bin histogram -> TEfficiency
- Advance to applying detector efficiencies to get a total number of surviving events!
- Generate the other grid points and repeat!

### This week:

- Calculated uncertainty both by hand and using TEfficiency  
Acceptance =  $0.3928 \pm 0.0034$   
It does not match with the paper value of 0.360 but the difference is only ~9%
- Accessed the efficiency (as function of  $d_0$  and  $P_t$ ) graph, converted it to a histogram



- Wrote a code to sample efficiencies from the histogram and apply them via a random number generator  
The general structure of the code seems logical
- Testing and troubleshooting the code (right now it is showing 0 as total number of surviving events)