work status

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sample status

- WWyy bkg:

  ›› jjjjyy, checking Alpgen parameters

  ›› jjlvyy (25K), made a stupid mistake on random seeds, have to lose some samples...

- WWWW signal:

- ›› Hheft-300GeV_UFO, zero cross-section, maybe not implement h->ww process

  ›› HeavyScalar, can only produce produce pp>hh

  may pass the output lhe to pythia8/herwig to do h decay?

  ›› actually can produce sample by JOs in athena, but the simulation takes much time!

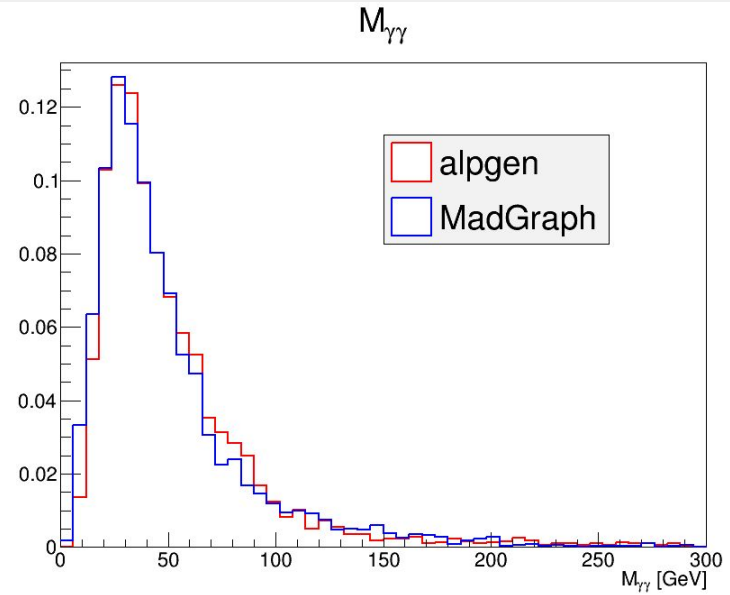
no progress...

Alpgen vs MadGraph

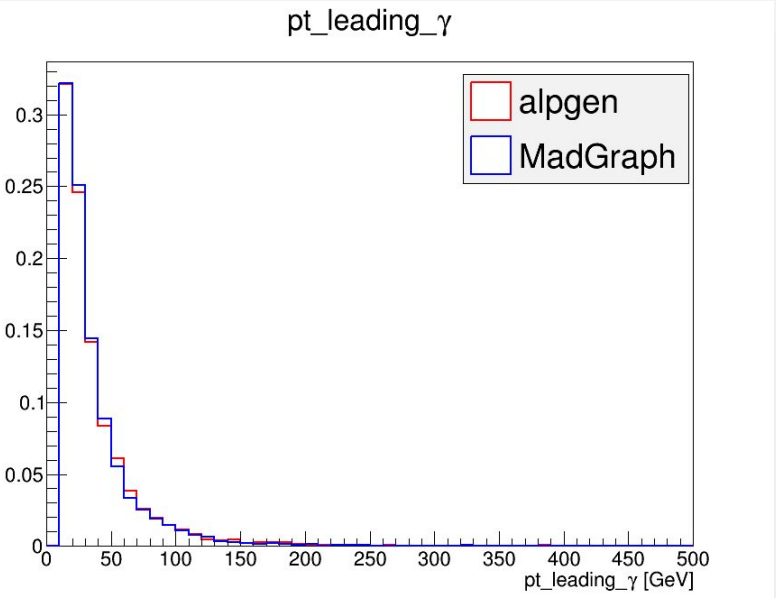
- to compare Alpgen with MadGraph, produced some jjyy samples

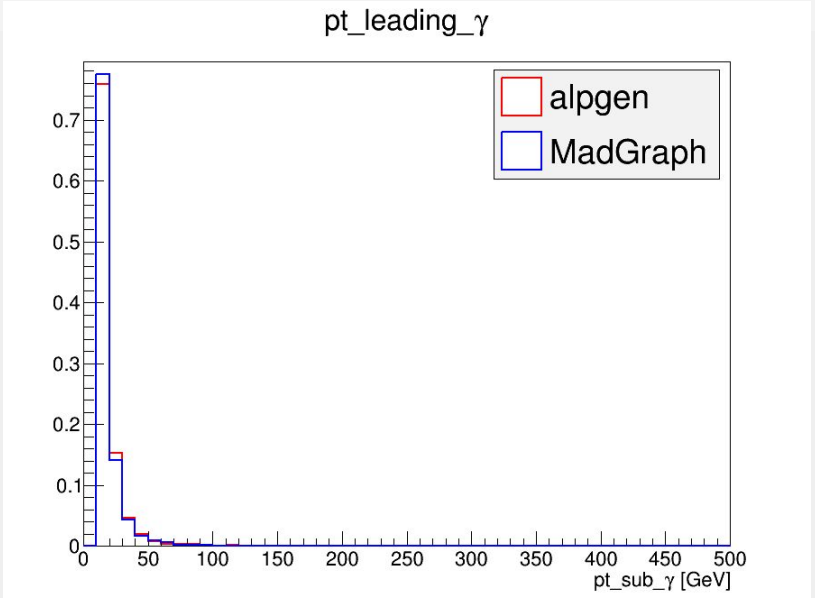
	Alpgen	MadGraph
PDF	CTEQ5l	nn23lol(Ct10nlo?)
Factorization/renormalization	Q=qfac*sqrt{sum(pt_ph^2+pt_jets^2)}	
xlclu (lambda value for ckkw alpha (match shower alpha))	-1	?
lpclu(loop order for ckkw alpha (match shower alpha))	-1	?
cluopt(kt scale option. 1:kt propto pt, 2:kt propto mt:)	1	?
…	…	…

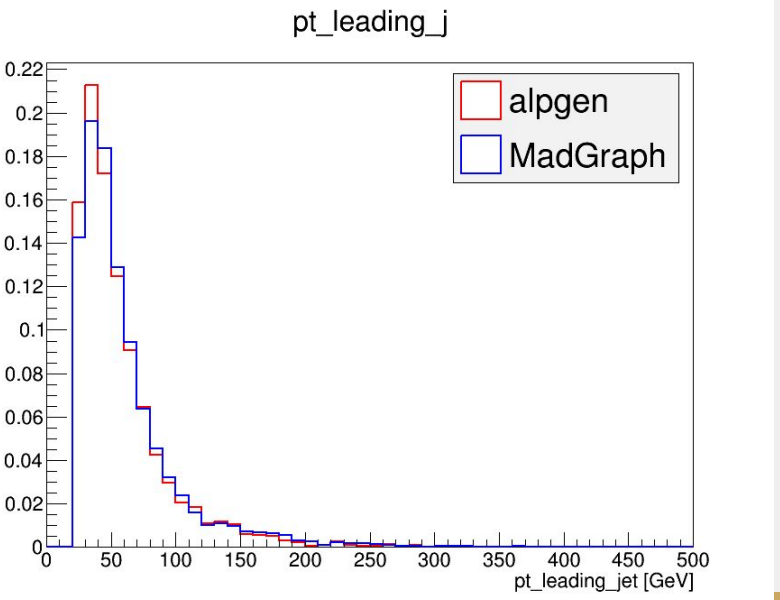
```
False =  fixed_ren_scale   ! if .true. use fixed ren scale
False =  fixed_fac_scale   ! if .true. use fixed fac scale
91.188       =  scale             ! fixed ren scale
91.188       =  dsqrt_q2fact1     ! fixed fact scale for pdf1
91.188       =  dsqrt_q2fact2     ! fixed fact scale for pdf2
-1     =  dynamical_scale_choice  ! Choose one of the preselected dynamical choi
1.0    =  scalefact         ! scale factor for event-by-event scales
```

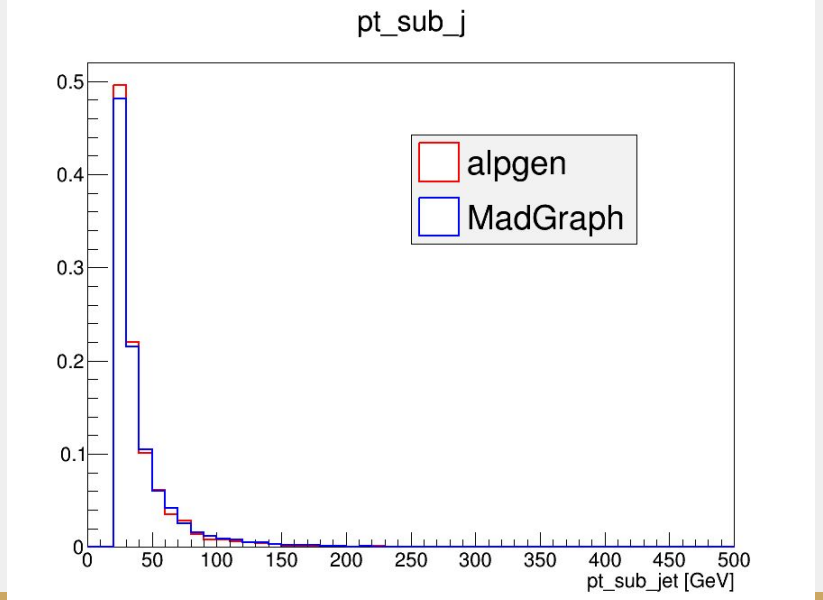


Alpgen vs MadGraph (jjyy)

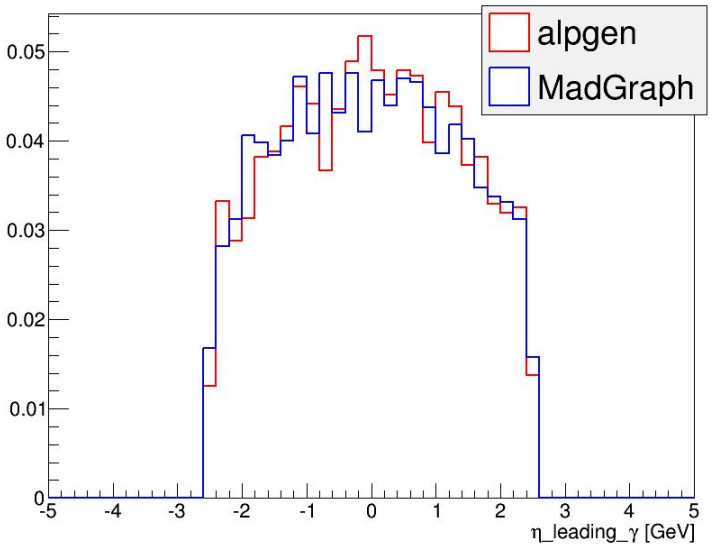




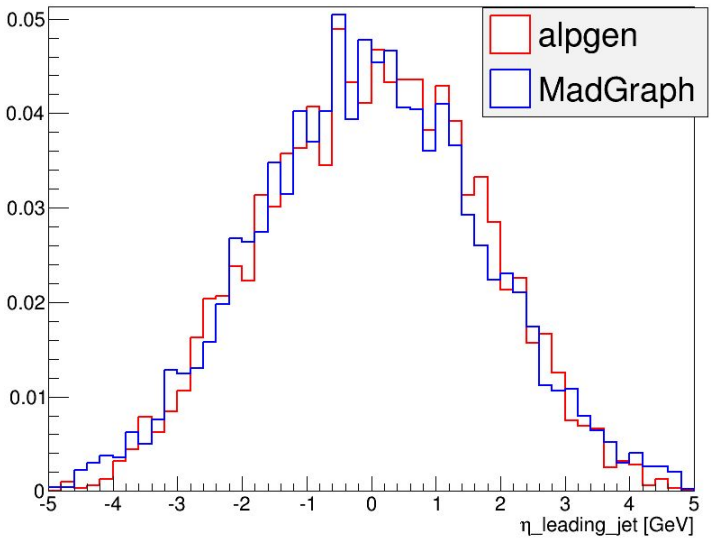


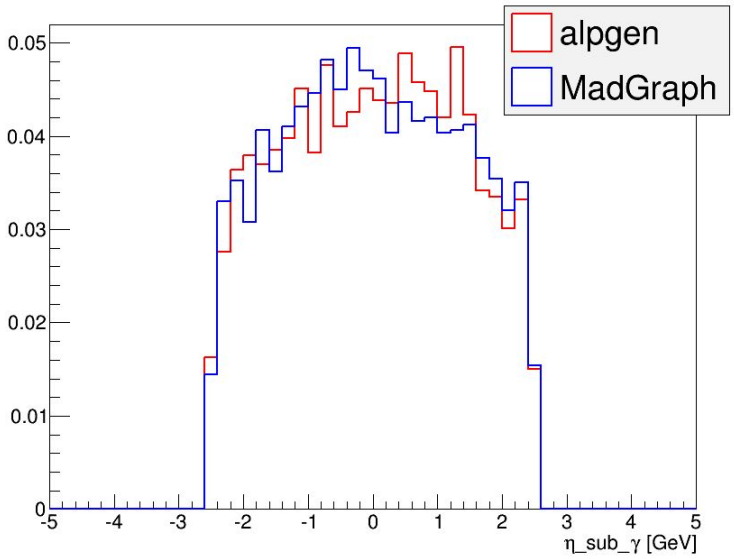


Alpgen vs MadGraph (jjyy)

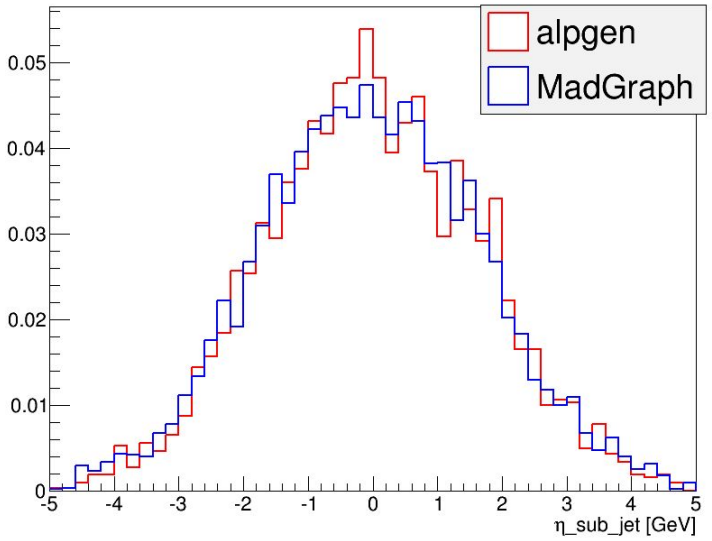


leading_j_η





sub_j_η



summary&to do

- Comparing to MadGraph samples, should i continue on Alpgen?
- Qualification task:

  ›› may make some plots and give a talk in a few weeks