

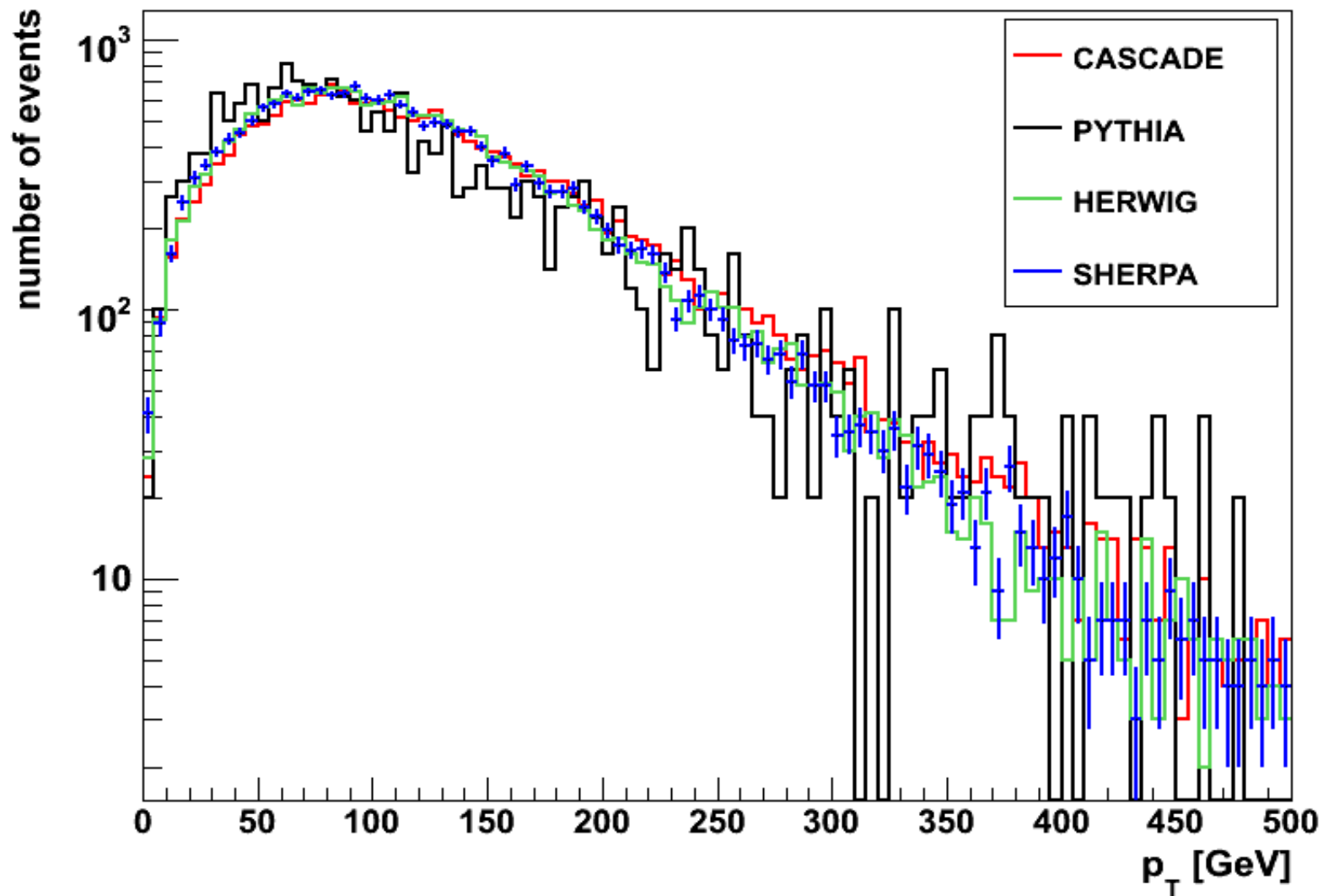
# MC School 2008

Comparison of

HERWIG, PYTHIA,  
SHERPA and CASCADE

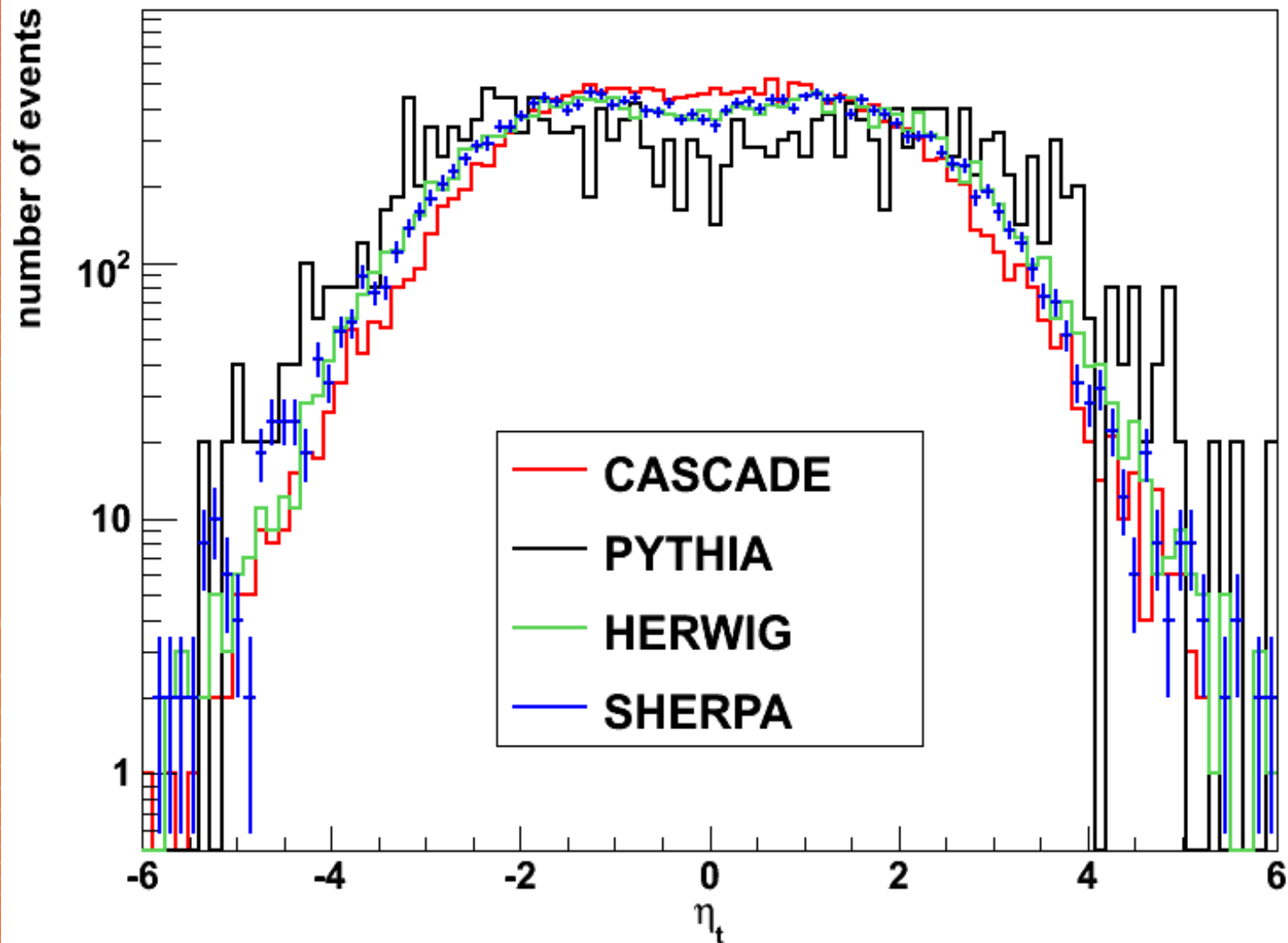
$pp \rightarrow t\bar{t}$   
14 TeV

## Transverse Momentum Distribution of the (Anti)Tops



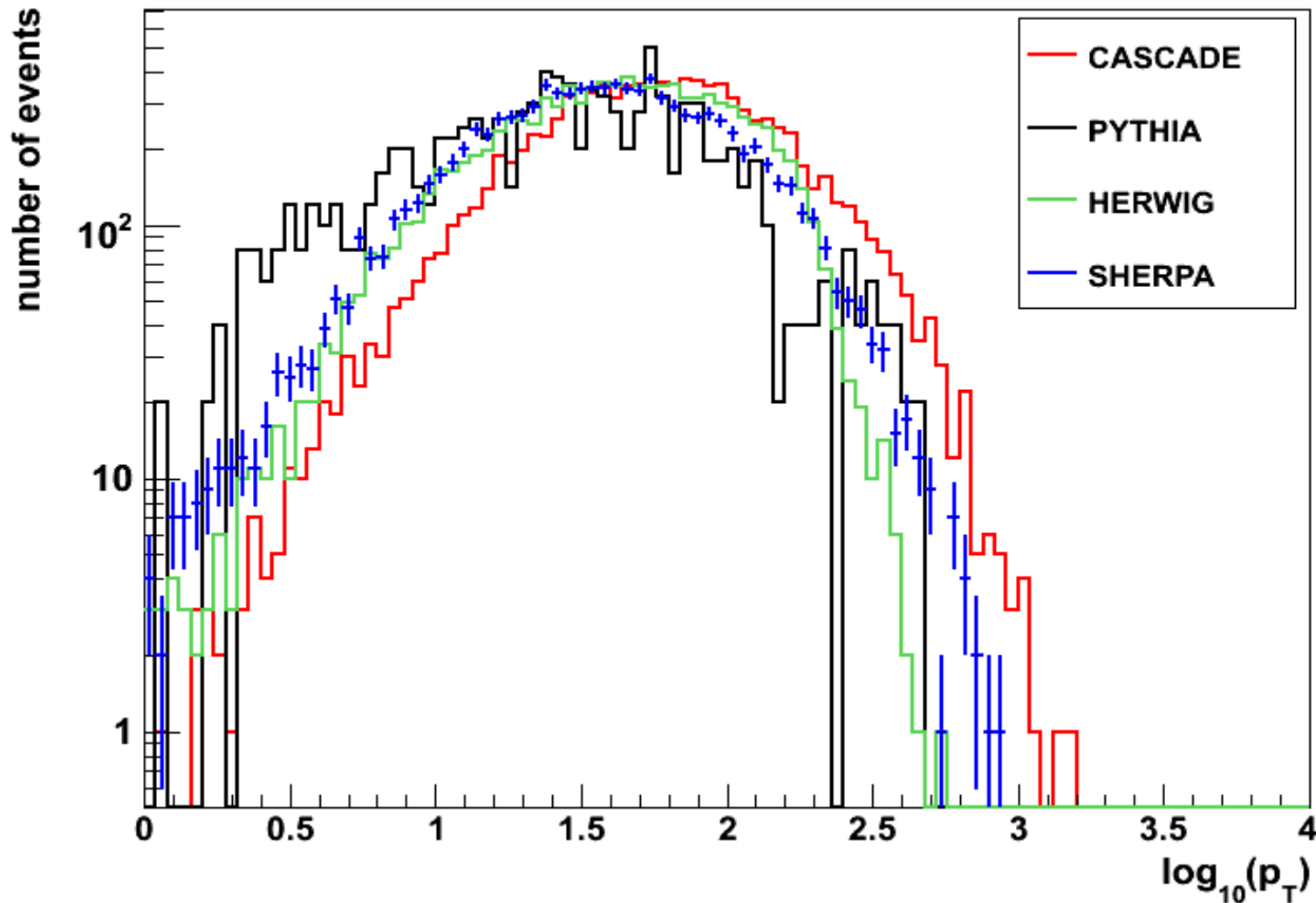
- Good agreement in low  $p_T$  range
- Deviation of Pythia due to lower statistics
- CASCADE produces harder top quarks

## Rapidity of the (Anti)Tops



- Again good agreement in low  $\eta$  range
- Best consistency between HERWIG and SHERPA

## Transverse Momentum of the $t\bar{t}$ System



- Generators seem to be shifted against each other
- CASCADE produces hardest recoil
- Difference because of different parton shower handling