Lund School Tutorial Introduction

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Introduction

Two tutorial sessions (today and Friday):

- Hands-on tutorials – you will run a generator
- Herwig++, Pythia 8, and Sherpa are represented here
  $\Rightarrow$ you need to pick one!
- Form groups: $\sim$ 4 people per group, every generator should be represented

Today: run the generator stand-alone, work with the generator

Friday: run events through Rivet, write a Rivet analysis

Today

- Work sheets for each generator; follow the instructions
- Learn to configure and run the generator, look at events
- Generator authors are present – ask questions!
- At the end: short Rivet run

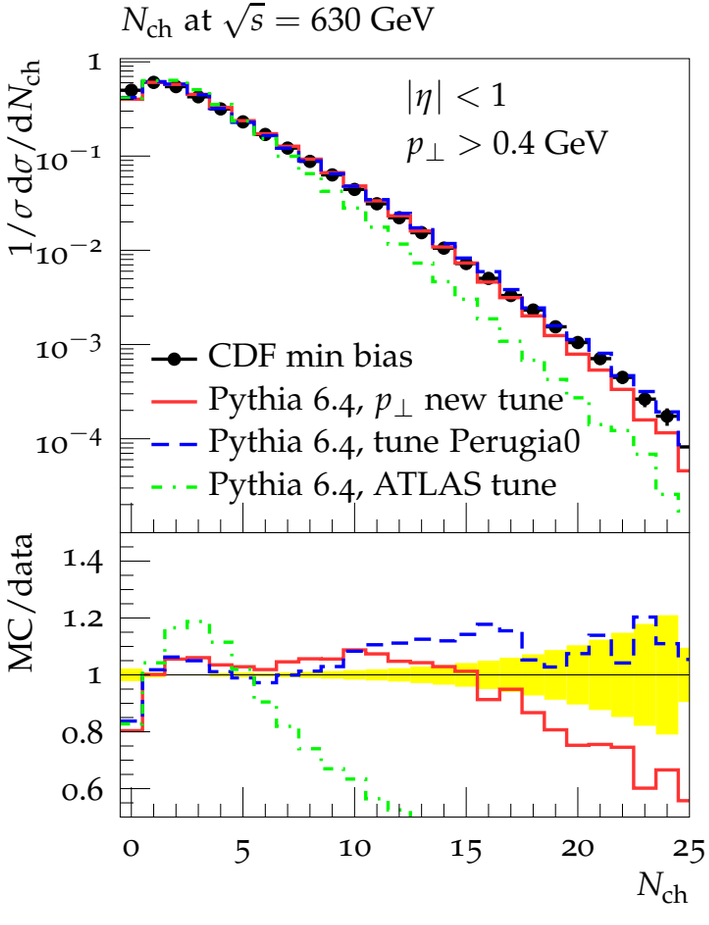
Friday

- Work sheets for each generator; follow the instructions
- Feed generator output into Rivet, write and run an analysis, make plots
- We prepared a simple $t\bar{t}$ mass analysis – you will improve it

Rivet

Tool for generator validation and comparisons with data:

- Analyses can be implemented in Rivet and applied to MC
- Uses HepMC $\Rightarrow$ generator-independent, perfect for comparisons
- Many key analyses are already implemented; many more to come.
- Important for keeping your data alive: Publish your numbers corrected to hadron level and implement your analysis in Rivet.



Where and how

- Before we leave: Form groups!
- The tutorials take place in the astronomy department
- Only $\sim$ 20 terminals available, so bring your laptop
- There is a wireless network, but using the ethernet cables is preferred.