

Generators exercise - set-up

- Plan to take Andreas Albert's exercise from last DAS in Hamburg as a starting point [1]
- For simplicity, focus only on madgraph+pythia, inside CMSSW
- Produce plots either with NanoGen + simple plotting script or rivet to see effect of changing parameters

[1] <https://twiki.cern.ch/twiki/bin/viewauth/CMS/SWGuideCMSDataAnalysisSchoolHamburg2018GeneratorExercise>

Generators exercise - content

- Start with pure Pythia process (e.g. Z+jets)
 - Try turning things on and off (shower, hadronisation, UE)
 - Plot Z pt for different types of shower (pythia vs vincia)
- Then move to LO madgraph
 - Explain syntax, try varying parameters (e.g. 4fs vs 5fs)
 - mlm matching
 - Use different example, e.g. stop production to explain UFOs
- aMC@NLO with FxFx merging
 - Need to test if a simple example (Z + 1 jets) can be run in a short time from a pre-made gridpack
 - Otherwise could provide LHE events