PB TMD meeting

- Hoping that you are all ok !

Reminder: Hard Probes contribution

- Question from Kolya Kauder (BNL)
  - For Hard Probes, I've been asked to present an overview and current status of various Monte Carlo approaches to hard probes (jets, EM, Heavy Flavor) in p+p, p+A, A+A, and their limitations and strengths, potentially with an eye toward e+P and e+A.

    I would very much appreciate your recent talks/papers, views, thoughts, and input. This can be as narrow and "biased" as you like, or completely "broad picture", in as much or little detail as you find appropriate and have time to spare.

TMDlib 2.0 – Status

- TMDlib 2.0
  - checked by M. Malyshev on Ubuntu 16.04 (gcc 7.1.0) → ok
  - Pavia group is added as developer → implementing Pavia TMD

CASCADE news

- Setting up Ticketing for TMDlib and CASCADE:
  - CASCADE: https://gitlab.cern.ch/jung/cascade/-/issues
    - CASCADE used by Trento group:
      - found issue for reading LHEfile with IDWTUP=3

        → now fixed in version 3.0.2-beta06

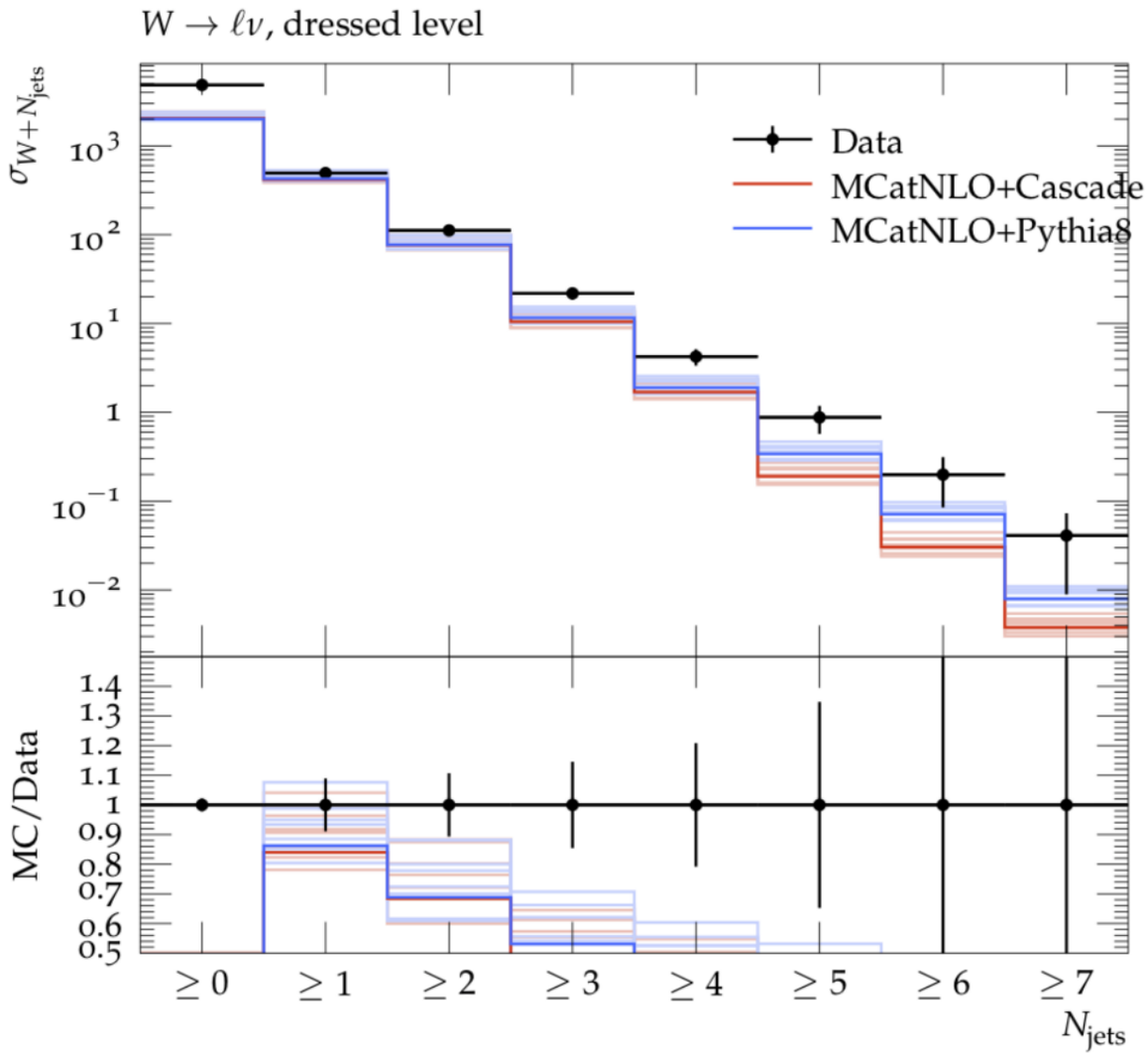
LHCEW Jet&Bosons – benchmark comparisons

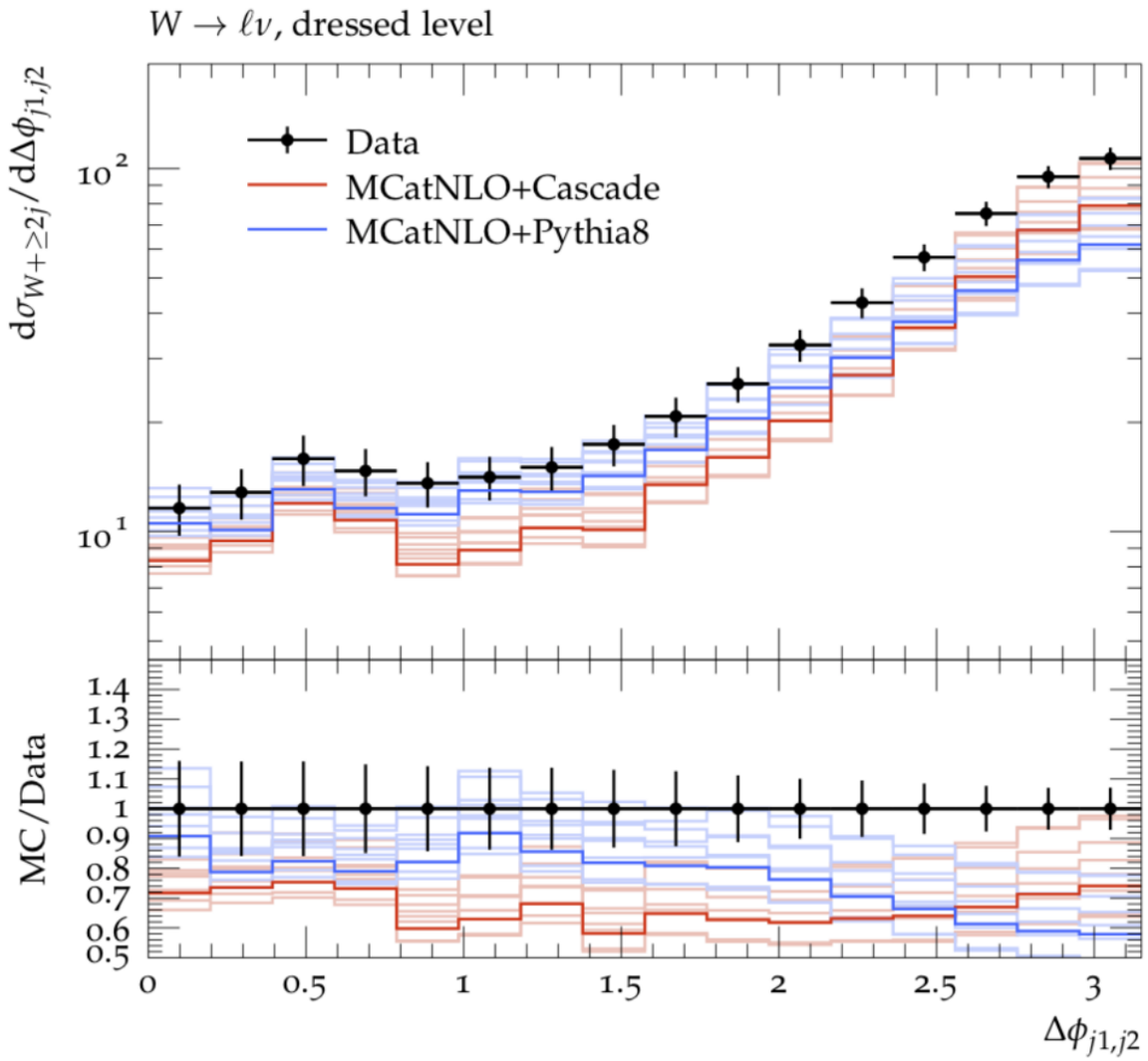
- next LHCEW meeting: 8. June 16:30 https://indico.cern.ch/event/926257/
  - Benchmark comparisons: include PB predictions
  - MC@NLO V+j (NLO) + PB TMD + PB shower
    - uncertainties: scale, pdf (TMD), matching scale ?
      - what else ?

  - POWHEG + PB ?
    - merging TMD + powheg ?

- Katie: does it make sense to compare LO with NLO predictions ?
  - who can help ?

LHCEW Jet&Bosons – benchmark comparisons





Agenda

Next workshops

- ICHEP 2020 30 July – 5 August Prague(is now video only)
  - Jet production at NLO in the Parton Branching method at LHC energies

    A. Bermudez, F. Hautmann

My abstracts

3 / 3 | Enter #id or search string

616.TMD densities at leading and higher order from the Parton Branching method

Sara Taheri Monfared (Deutsches Elektrone...)

Last modified: 21 Feb 2020

Submitted

We present a new determination of Transverse Momentum Dependent (TMD) parton distributions obtained with the Parton Branching (PB) method at LO, NLO and NNLO. The PB TMDs are extracted from fits to precision DIS data using

800.Drell-Yan production at NLO in the Parton Branching method at low and high DY masses and low and high *sqrts*

Qun Wang (Peking University (CN))

Last modified: 25 Feb 2020

Submitted

Transverse Momentum Dependent (TMD) parton distributions obtained from the Parton Branching (PB) method are combined with next-to-leading-order (NLO) calculations of Drell-Yan (DY) production. We apply the MC@NLO method for

857.Parton Branching method and applications to pp and ep processes

Jindrich Lidrych (Deutsches Elektrone...)

Last modified: 26 Feb 2020

Submitted

Transverse Momentum Dependent (TMD) parton distributions obtained within the Parton Branching (PB) approach offer a wide spectrum of applications to describe processes in pp as well as in ep interactions. We give an overview of the PB

News

- CASCADE 3.0.2-beta02 released:
  - `/afs/desy.de/user/j/jung/scratch-dust/cvs/cascade3/cascade-3.0.2-beta02.tar.gz`
- next release:
  - allow for multiple weights → to be used in Rivet3 for scales (and perhaps for TMD)
- further CASCADE strategy:
  - need to rewrite CASCADE for modern language
    - either: separate CASCADE with links to pythia (strategy as is now)
      - standalone making use of tools from Pythia
    - or: CASCADE as plugin to pythia
      - included in Pythia, just as a switch

PB strategies

- Need a repository for predictions and comparisons
  - PBplots (similar to MCplots)
    - allow to plot any distribution, compare to data, but also to std MCs
    - link to some PB plots

- Prepare for a systematic comparison of PB pred with data (Armandos idea)
  - prepare for a legacy paper ?

- PB comparisons
  - inclusive DY at LHC
  - inclusive DY at low $\sqrt{s}$ and low m_{DY}
  - Z+jets, W+jets
  - Z+bjets
  - inclusive jets
  - inclusive b-jets
  - di-jet correclations
  - etc ?