PB TMD meeting

- Hoping that you are all ok !
- Tomorrow is 1. May – in most countries public holiday

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

News

- TMDlib2.0 is ready
  - to be uploaded today on: https://tmdlib.hepforge.org/
    - still one issue with memory in YAML interface ...
    - M. Rohrmoser (Cracow) is looking into it
  - are features missing ?
    - multiple TMD sets in fortran interface

- What to do with extrapolations ?
  - TMDlib1: values were frozen at phase space limits
    - keep this approach or do extrapolation ?

LHCEW yellow report this year

- LHCEW WG is planning a midterm yellow report:
  - important: benchmark comparisons
    - PB results for jets, Z+jets, W+jets ?
      - can we start a task force to produce benchmark comparisons ?
      - other contributions ?
  - include determination of intrinsic kt

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 ?

Agenda