

# PB TMD meeting

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- Hoping that you are all ok !

# Next workshops

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- [REF 2020](#): scheduled for 7-11 Dec 2020, Higgs center Edinburgh

# Preparation of discussion session at REF2020

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- Resummation and Parton shower (1 h)
  - (chairs: A. Siodmok, L. Lonnblad, H. Jung)
  - Topics:
    - *Parton shower and evolution equations*
      - initial state PS and parton densities
      - final state PS and fragmentation fcts
      - Les Houches studies
    - *Detailed checks of Resummation vrs Parton shower*
    - *TMD densities from PS*
  - *Phenomenology:*
    - Z pt spectrum
    - Jet mass distributions

# PS2TMD: P8 and PB-TMDs

Schmitz, M., Hautmann, F., Jung, H., and Monfared, S. T. (2019). TMD parton distributions from parton showers, PoS, DIS2019(), 134 arXiv 1907.09441  
 Schmitz, M. V. (2019). Drell-Yan Production with Transverse Momentum Dependent Parton Densities <https://bib-pubdb1.desy.de/record/427383>

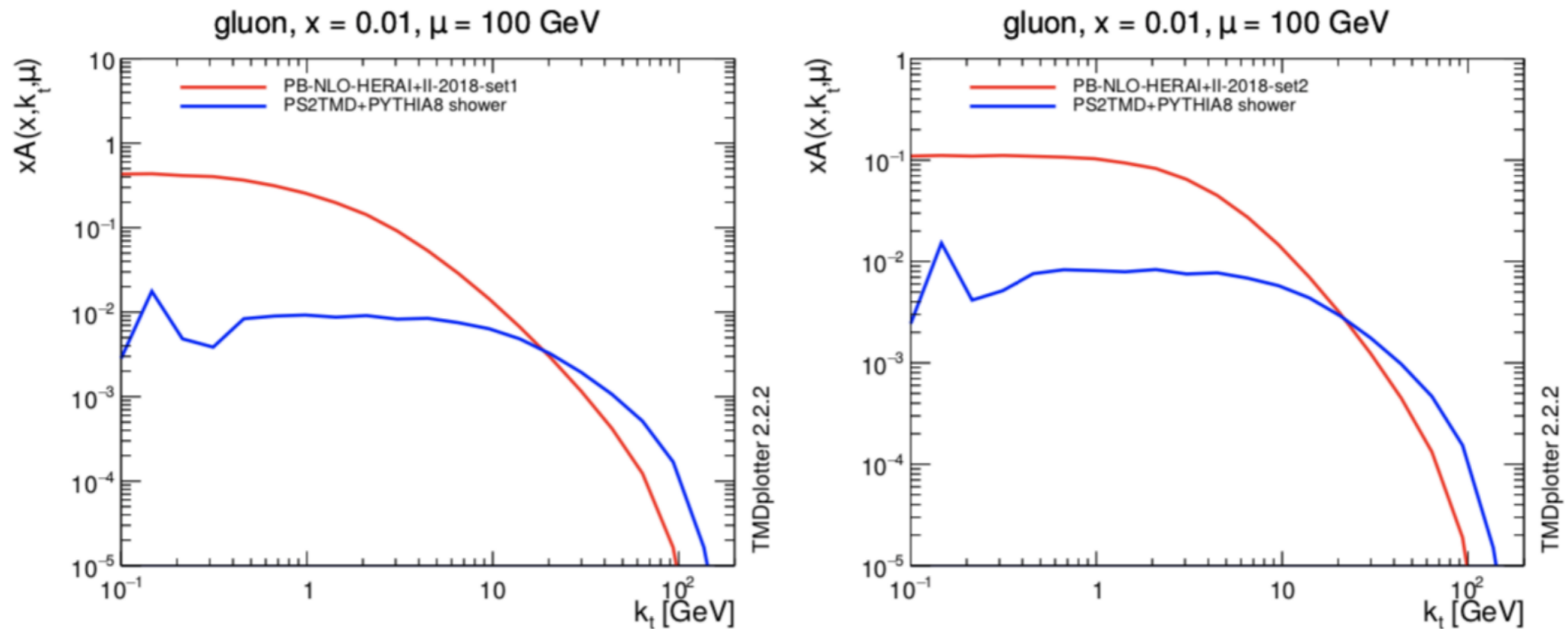


Figure 16: TMD parton distributions for gluons as a function of  $k_{\perp}$  at  $\mu = 100 \text{ GeV}$  and  $x = 0.01$  obtained from PS2TMD+PYTHIA8 shower and compared to PB-Set1 and PB-Set2 (red). Left: PB-Set1 is used for the collinear calculation. Right: PB-Set2 is used for the collinear calculation.

# PS2TMD: H6 and PB-TMDs

Schmitz, M., Hautmann, F., Jung, H., and Monfared, S. T. (2019). TMD parton distributions from parton showers, PoS, DIS2019(), 134 arXiv 1907.09441  
 Schmitz, M. V. (2019). Drell-Yan Production with Transverse Momentum Dependent Parton Densities <https://bib-pubdb1.desy.de/record/427383>

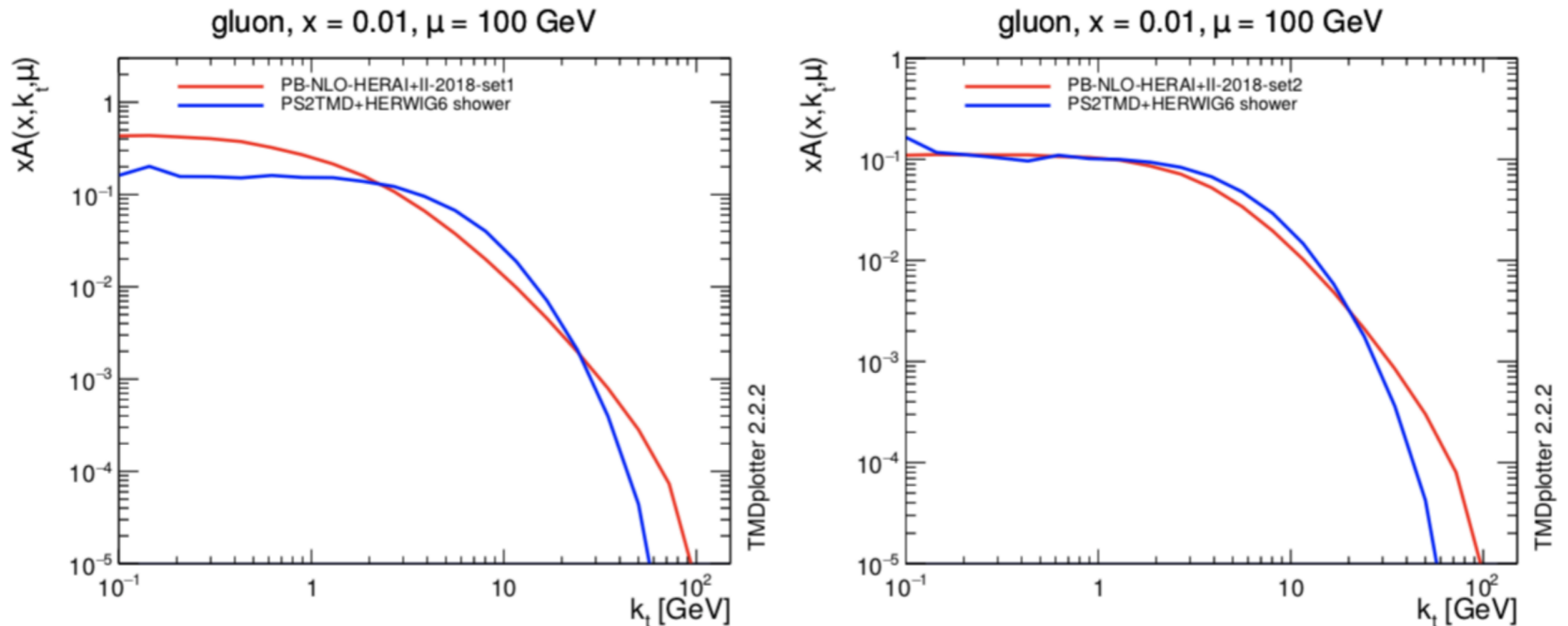


Figure 19: TMD parton distributions for gluons as a function of  $k_{\perp}$  at  $\mu = 100$  GeV and  $x = 0.01$  obtained from PS2TMD+HERWIG6 shower (blue) and compared to PB-Set1 and PB-Set2 (red). Left: PB-Set1 is used for the collinear calculation. Right: PB-Set2 is used for the collinear calculation.

# Agenda

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