



# QCD Evolution Workshop 2021

## Monday, May 10, 2021

### QCD: Monday session 1 - ZOOM (9:30 AM - 11:20 AM)

-Conveners: Zhongbo Kang

time	[id] title	presenter
9:30 AM	[M1] Welcome	BERN, Zvi
9:35 AM	[M4] Introduction	KANG, Zhongbo
9:40 AM	[M2] Milestones of evolution	STERMAN, George
10:05 AM	[S1] Jets and Longitudinal Proton Structure at the EIC	BOUGHEZAL, Radja
10:30 AM	[M3] QCD Resummation for Jet Observables at Colliders	YUAN, Feng
10:55 AM	[S2] Projections of jet measurements at the EIC and recent HERA results	ARRATIA, Miguel

### QCD: Monday Session 2 - ZOOM (11:50 AM - 1:30 PM)

-Conveners: Alexei Prokudin

time	[id] title	presenter
11:50 AM	[S3] Overview of recent HERMES results on transverse-momentum dependent spin asymmetries	SCHNELL, Gunar
12:15 PM	[M5] Sivers and Qiu-Sterman functions from SIDIS and Drell-Yan data	ALEXEY, Vladimirov
12:40 PM	[S4] Reweighting the quark Sivers function with STAR jet data	FLORE, Carlo
1:05 PM	[M6] Gluon TMDs and $J/\psi$ polarization in $e p$ collisions	PISANO, Cristian

### QCD: Monday session 3 - ZOOM (2:00 PM - 4:05 PM)

-Conveners: Leonard Gamberg

time	[id] title	presenter
2:00 PM	[M10] Measurement of the Drell-Yan transverse momentum dependence over a wide mass range from CMS	MOUREAUX, Louis
2:25 PM	[M11] TMD Parton Distributions up to N <sup>3</sup> LL from Drell-Yan data	BOZZI, Giuseppe
2:50 PM	[M14] Using TMD formalism for predictions of the W and Z spectrum	SCIMEMI, ignazio
3:15 PM	[M12] Factorization & Resummation of Fiducial Power Corrections	MICHEL, Johannes K. L.
3:40 PM	[M13] Renormalization schemes for parton densities	ROGERS, Ted

# Tuesday, May 11, 2021

## QCD: Tuesday session 1 - ZOOM (9:30 AM - 11:10 AM)

-Conveners: Martha Constantinou

time	[id] title	presenter
9:30 AM	[M5] Recent Progress in Large-Momentum Effective Theory	JI, Xiangdong
9:55 AM	[M6] QCD factorization for twist-three quasi(pseudo) parton distributions	BRAUN, Vladimir
10:20 AM	[M7] Precision calculation of the x-dependence of PDFs from lattice QCD	Dr ZHAO, Yong
10:45 AM	[M8] Determination of the Collins-Soper Kernel from Lattice QCD	SCHLEMMER, Maximilian

## QCD: Tuesday session 2 - ZOOM (11:40 AM - 1:20 PM)

-Conveners: Ian Cloet

time	[id] title	presenter
11:40 AM	[M9] Recent Progress in Lattice Parton Distribution Calculations	Prof. LIN, Huey-Wen
12:05 PM	[M10] x-dependent GPDs from Lattice QCD	CONSTANTINO, Martha
12:30 PM	[M11] Valence PDF of pion from lattice QCD	MUKHERJEE, Swagato
12:55 PM	[M12] Gluon distribution from lattice QCD	SUFIAN, Raza

## QCD: Tuesday session 3 - ZOOM (1:50 PM - 4:20 PM)

-Conveners: simonetta liuti

time	[id] title	presenter
1:50 PM	[M13] Transverse spin sum rule	LORCÉ, Cédric
2:15 PM	[M14] Twist-3 GPDs and Orbital Angular Momentum	Dr SHIELLS, Kyle
2:40 PM	[M15] Exclusive massive photon-pair production in meson-baryon collisions	YU, Zhite
3:00 PM	[M16] Lorentz Invariance and Equation of Motion Relations for polarized GTMDs and Angular Momentum	ENGELHARDT, Michael
3:20 PM	[M17] Two-loop coefficient function for DVCS: Vector contributions	SCHONLEBER, Jakob
3:40 PM	[M18] Revisiting GPD evolution equations	Dr BERTONE, Valerio

# Wednesday, May 12, 2021

## QCD: Wednesday session 1 - ZOOM (9:30 AM - 11:10 AM)

-Conveners: Yoshitaka Hatta

time	[id] title	presenter
9:30 AM	[M0] Update on helicity at small x	KOVCHegov, Yuri
9:50 AM	[M1] Single Logarithmic Contribution to Small-x Helicity Evolution	TAWABUTR, Yossathorn
10:05 AM	[M2] Quark Sivers Function at Small-x: Return of a Spin-Dependent Odderon	SANTIAGO, Melvin
10:20 AM	[M3] High-energy OPE for polarized DIS	CHIRILLI, Giovanni Antonio
10:45 AM	[M4] Threshold resummation in forward hadron production	LIU, xiaohui

## QCD: Wednesday session 2 - ZOOM (11:40 AM - 1:20 PM)

-Conveners: Ivan Vitev

time	[id] title	presenter
11:40 AM	[P9] Towards a unification of gluon distributions at small and moderate x	Dr MEHTAR-TANI, Yacine
12:05 PM	[P6] ITMD factorization and its recent applications	KUTAK, Krzysztof
12:30 PM	[P7] Small-x dijet/dihadron production the EIC: beyond the TMD factorization and progress towards NLO	SALAZAR, Farid
12:55 PM	[P8] Forward dijets in proton-nucleus collisions at next-to-leading order: the real corrections	MULIAN, Yair

## QCD: Wednesday session 3 - ZOOM (1:50 PM - 3:55 PM)

-Conveners: Alexei Prokudin

time	[id] title	presenter
1:50 PM	[M9] Gauge-invariant TMD factorization for Drell-Yan hadronic tensor at small-x	BALITSKY, Ian
2:15 PM	[M0] Evolution with transverse momentum dependent splitting functions	Dr HENTSCHINSKI, Martin
2:40 PM	[M1] Exclusive Double Drell-Yan factorization and GTMDs	GUTIERREZ, Patricia
3:05 PM	[M2] JIMWLK Evolution, Lindblad Equation and Quantum-Classical Correspondence	LI, Ming
3:30 PM	[M3] Entanglement, partial set of measurements, and diagonality of the density matrix in the parton model	SKOKOV, Vladimir

# Thursday, May 13, 2021

## QCD: Thursday session 1 - ZOOM (9:30 AM - 11:10 AM)

-Conveners: Dingyu Shao

time	[id] title	presenter
9:30 AM	[M4] Leading jets and energy loss	RINGER, Felix
9:55 AM	[M5] Rethinking Jets with the Lightray OPE	MOULT, Ian
10:20 AM	[M6] The Time-reversal Odd Side of a Jet	XING, Hongxi
10:45 AM	[M7] Azimuthal decorrelation in V+jet production with the WTA axis	RAHN, Rudi

## QCD: Thursday session 2 - ZOOM (11:40 AM - 1:20 PM)

-Conveners: Kyle Lee

time	[id] title	presenter
11:40 AM	[M8] The track functions and their QCD evolution	WAALEWIJN, Wouter
12:05 PM	[M9] Two-loop splitting in double parton distributions: the colour non-singlet case	PLOSSL, Peter
12:30 PM	[M10] Two-loop evolution equation for the B-meson distribution amplitude	JI, Yao
12:55 PM	[M11] Energy-energy correlators in DIS (as a probe to TMDPDFs)	MAKRIS, Yiannis

## QCD: Thursday session 3 - ZOOM (1:50 PM - 3:40 PM)

-Conveners: John Terry

time	[id] title	presenter
1:50 PM	[M12] Probing the Quark Gluon Plasma with jets	VAIDYA, varun
2:15 PM	[M13] Effects of Non-Gaussian in-medium transverse momentum broadening on di-jet observables	ROHRMOSER, Martin
2:40 PM	[M14] Recent updates from JAM collaboration	SATO, nobuo
2:50 PM	[M15] Gluon helicity distributions	ZHOU, Yiyu
3:00 PM	[M15] Isovector EMC effect from global QCD analysis with MARATHON data	COCUZZA, Christopher
3:10 PM	[M16] Extractions of Collinear and TMD Parton Distributions in the Pion	BARRY, Patrick
3:20 PM	[M17] Small-x Helicity Phenomenology	ADAMIAK, Daniel
3:30 PM	[M18] Phenomenological Study of the Origin of SSAs and Extraction of the Tensor Charge	PITONYAK, Daniel

# Friday, May 14, 2021

## QCD: Friday session 1 - ZOOM (9:30 AM - 11:35 AM)

-Conveners: Leonard Gamberg

time	[id] title	presenter
9:30 AM	[M9] TMDs for spin-1 hadrons	KUMANO, Shunzo
9:55 AM	[M0] Space-Time Reciprocity Relations and Fragmentation	NEILL, Duff
10:20 AM	[M1] Phenomenological extraction of a universal TMD FF from BELLE single hadron production data	BOGLIONE, Mariaelena
10:45 AM	[M2] Hadron production in e+e- collisions within the helicity formalism and the $\Lambda$ polarizing FF	Prof. D'ALELIO, Umberto
11:10 AM	[M3] Gravitational Form Factors and Mechanical Properties of the Proton in a Diquark Model	Dr MUKHERJEE, Asmita

## QCD: Friday session 2 - ZOOM (12:05 PM - 1:45 PM)

-Conveners: Anatoly Radyushkin

time	[id] title	presenter
12:05 PM	[M4] Accessing the neutron charge radius through electron scattering	SPARVERIS, Nikos
12:30 PM	[M5] Vector meson production in the polarized quark fragmentation process	KERBIZI, Albi
12:55 PM	[M6] The Energy Momentum Tensor and the D-term	RODINI, Simone
1:20 PM	[M7] QCD Analysis of Near-Threshold Photon-Proton Production of Heavy Quarkonium	GUO, Yuxun

## QCD: Friday session 3 - ZOOM (2:15 PM - 4:25 PM)

-Conveners: Zhongbo Kang

time	[id] title	presenter
2:15 PM	[M8] Single spin asymmetry at two loops	HATTA, Yoshitaka
2:40 PM	[M9] Correlation effects in hadronization	AVAGYAN, Harut
3:05 PM	[M0] TMDs in the covariant parton model with a generalized systematic approach	BASTAMI, Saman
3:30 PM	[M1] Lorentz invariance relation anomalies and intrinsic parton transverse momentum	ASLAN, Fatma
3:50 PM	[M2] A Comprehensive framework for deeply virtual exclusive experiments	LIUTI, simonetta
4:10 PM	[M3] Summary and future plans	PROKUDIN, Alexei