

量子场论及其应用研讨会

Monday, 14 August 2023 - Wednesday, 16 August 2023

北京计算科学中心

Book of Abstracts

Contents

会议开幕致辞	1
QCD Precision Measurements at the LHC	1
Review on Analytic Feynman Integrals	1
Analytic calculation of multi-loop master integrals for top quark inclusive decay	1
Nucleon Energy-Energy Correlator in Lepton-Nucleon Collisions	1
QCD resummation of dijet azimuthal decorrelations in pp and pA collisions	1
The double logarithms in the cross section of $e e \rightarrow J/\psi + \eta c$ at NNLO	1
Precision Study of Gluon Saturation: Experimental Analysis versus Theoretical Approach	2
A Beautiful Path to Quantum Chromodynamics	2
Correspondence between CGC and high twist factorization formalisms	2
Soft Theorem to Three Loops in QCD and $N = 4$ Super Yang-Mills Theory	2
Precise prediction for the top quark width	2
Higgs boson pair production and decay to $b\bar{b}\gamma\gamma$ at NLO in QCD	2
Extending Precision Perturbative QCD with Track Functions	2
Aspects of form factors	2
Capping the positivity cone: SMEFT Higgs	3
有效场论观点下的新物理	3
Automated calculation of Jet fragmentation at NLO in QCD	3
Heavy-quark-pair production at lepton colliders at NNNLO in QCD	3
Optimized NNLO correction of exclusive double J/Psi production	3
NeatIBP: to generate small size IBP relations by Module intersection	3
Quark masses and low energy constants in the continuum from the CLQCD ensembles .	3
Nonanalyticity and on-shell factorization of inflation correlators to all loop orders . . .	4

Blade: a package for block-triangular form improved Feynman integral decomposition	4
Microscopic Encoding of Macroscopic Universality: Scaling properties of Dirac Eigenspectra near QCD Chiral Phase Transition	4
Bootstrapping One-loop Inflation Correlators with the Spectral Decomposition	4
Analytical Results for Inflation Correlators at Tree and Loop Levels	4
Wilson-loop One-point Functions in ABJM Theory	4
Giant correlators at quantum level	4
Some new progresses of graphic rule	5
Bootstrapping the form factor with master integrals and the maximal transcendentality principle	5
Classical double copy of worldline quantum field theory	5
Symbol letters from Baikov representation	5
Double logarithmic contribution to Higgs pair production in the high energy limit	5
A unique γ_5 prescription for the Standard Model in Dimensional Regularization	5
费曼积分在格拉斯曼流形上的 GKZ 超几何函数表示	5
Recovering off-shell color-kinematics duality through minimal deformation	6
构造对称的 EYM 树级散射振幅的一些尝试	6
electroweak corrections to Higgs boson pair production in gluon fusion	6
The study of NNLO-QCD correction to double charmonium production at the high energy collider	6

36

会议开幕致辞

大会报告 / 38

QCD Precision Measurements at the LHC

大会报告 / 39

Review on Analytic Feynman Integrals

Corresponding Author: yanglilin@zju.edu.cn

大会报告 / 40

Analytic calculation of multi-loop master integrals for top quark inclusive decay

大会报告 / 41

Nucleon Energy-Energy Correlator in Lepton-Nucleon Collisions

Corresponding Author: 202131140013@mail.bnu.edu.cn

大会报告 / 43

QCD resummation of dijet azimuthal decorrelations in pp and pA collisions

Corresponding Author: msgao@fudan.edu.cn

大会报告 / 44

The double logarithms in the cross section of $e e \rightarrow J/\psi + \eta c$ at NNLO

Corresponding Author: 201912042@mail.sdu.edu.cn

大会报告 / 45

Precision Study of Gluon Saturation: Experimental Analysis versus Theoretical Approach

大会报告 / 46

A Beautiful Path to Quantum Chromodynamics

大会报告 / 47

Correspondence between CGC and high twist factorization formalisms

大会报告 / 48

Soft Theorem to Three Loops in QCD and N = 4 Super Yang-Mills Theory

Corresponding Author: chenwenphy@gmail.com

大会报告 / 49

Precise prediction for the top quark width

大会报告 / 50

Higgs boson pair production and decay to $b\bar{b}\gamma\gamma$ at NLO in QCD

Corresponding Author: zhaodian@mail.sdu.edu.cn

大会报告 / 51

Extending Precision Perturbative QCD with Track Functions

大会报告 / 52

Aspects of form factors

大会报告 / 53

Capping the positivity cone: SMEFT Higgs

大会报告 / 54

有效场论观点下的新物理

大会报告 / 55

Automated calculation of Jet fragmentation at NLO in QCD

Corresponding Author: liucy1999@sjtu.edu.cn

大会报告 / 56

Heavy-quark-pair production at lepton colliders at NNNLO in QCD

大会报告 / 57

Optimized NNLO correction of exclusive double J/Psi production

大会报告 / 58

NeatIBP: to generate small size IBP relations by Module intersection

大会报告 / 59

Quark masses and low energy constants in the continuum from the CLQCD ensembles

大会报告 / 60

Nonanalyticity and on-shell factorization of inflation correlators to all loop orders

大会报告 / 61

Blade: a package for block-triangular form improved Feynman integral decomposition

大会报告 / 62

Microscopic Encoding of Macroscopic Universality: Scaling properties of Dirac Eigenspectra near QCD Chiral Phase Transition

Corresponding Author: huangweiping@mails.ccnu.edu.cn

大会报告 / 63

Bootstrapping One-loop Inflation Correlators with the Spectral Decomposition

Corresponding Author: zhy21@mails.tsinghua.edu.cn

大会报告 / 64

Analytical Results for Inflation Correlators at Tree and Loop Levels

Corresponding Author: qzh21@mails.tsinghua.edu.cn

大会报告 / 65

Wilson-loop One-point Functions in ABJM Theory

大会报告 / 66

Giant correlators at quantum level

大会报告 / 67

Some new progresses of graphic rule

Corresponding Author: yijian.du@whu.edu.cn

大会报告 / 68

Bootstrapping the form factor with master integrals and the maximal transcendentality principle

Corresponding Author: guoyuanhong@itp.ac.cn

大会报告 / 69

Classical double copy of worldline quantum field theory

大会报告 / 70

Symbol letters from Baikov representation

Corresponding Author: xhjiang@itp.ac.cn

大会报告 / 71

Double logarithmic contribution to Higgs pair production in the high energy limit

大会报告 / 72

A unique γ_5 prescription for the Standard Model in Dimensional Regularization

大会报告 / 73

费曼积分在格拉斯曼流形上的 GKZ 超几何函数表示

Corresponding Author: hbzhang@hbu.edu.cn

大会报告 / 74

Recovering off-shell color-kinematics duality through minimal deformation

Corresponding Author: lizeyu@itp.ac.cn

大会报告 / 75

构造对称的 EYM 树级散射振幅的一些尝试

Corresponding Author: shiqma@whu.edu.cn

大会报告 / 76

electroweak corrections to Higgs boson pair production in gluon fusion

大会报告 / 77

The study of NNLO-QCD correction to double charmonium production at the high energy collider

Corresponding Author: legend_he@pku.edu.cn