

LoopFest 2018

Report of Contributions

Contribution ID: 1

Type: **not specified**

Welcome Drink

Monday 16 July 2018 19:00 (2 hours)

Contribution ID: 2

Type: **not specified**

Review of ATLAS Results

Tuesday 17 July 2018 09:30 (45 minutes)

35'+10'

Presenter: FISHER, Wade Cameron (Michigan State University)

Session Classification: LHC Experimental Review

Contribution ID: 3

Type: **not specified**

Review of CMS Results

Tuesday 17 July 2018 10:15 (45 minutes)

35'+10'

Presenter: LIU, Miaoyuan (Fermi National Accelerator Lab. (US))

Session Classification: LHC Experimental Review

Contribution ID: 4

Type: **not specified**

Top-pair production at the LHC: transverse momentum resummation and azimuthal asymmetries

Tuesday 17 July 2018 11:30 (30 minutes)

25'+5'

Presenter: GRAZZINI, Massimiliano (Universitaet Zuerich (CH))**Session Classification:** Phenomenology 1

Contribution ID: 5

Type: **not specified**

Diboson production at NNLO(+PS)

Tuesday 17 July 2018 12:00 (30 minutes)

25'+5'

Presenter: WIESEMANN, Marius (CERN)

Session Classification: Phenomenology 1

Contribution ID: 6

Type: **not specified**

Jets at the LHC: a second look inside

Tuesday 17 July 2018 14:00 (30 minutes)

25'+5'

Presenter: BELLM, Johannes (Lund)

Session Classification: Phenomenology 2

Contribution ID: 7

Type: **not specified**

NLO EW corrections for W and Z scattering at the LHC

Tuesday 17 July 2018 14:30 (30 minutes)

25'+5'

Presenter: SCHWAN, Christopher

Session Classification: Phenomenology 2

Contribution ID: 8

Type: **not specified**

Photon-associated top-quark pair production with off-shell effects

Tuesday 17 July 2018 15:00 (30 minutes)

25'+5'

Presenter: Dr KRAUS, Manfred (HU Berlin)

Session Classification: Phenomenology 2

Contribution ID: **10**

Type: **not specified**

QCD and EW one-loop corrections with NLOX

Tuesday 17 July 2018 16:00 (30 minutes)

25'+5'

Presenter: REUSCHLE, Christian (Florida State University)

Session Classification: Phenomenology 3

Contribution ID: 11

Type: **not specified**

On-the-fly reduction of open loops and its applications

Tuesday 17 July 2018 16:30 (30 minutes)

25'+5'

Presenter: ZOLLER, Max (UZH)

Session Classification: Phenomenology 3

Contribution ID: 12

Type: **not specified**

NLO predictions for $t\bar{t}+b\bar{b}$ production in association with a light jet at the LHC

Tuesday 17 July 2018 17:00 (30 minutes)

Presenter: BUCCIONI, Federico (University of Zurich)

Session Classification: Phenomenology 3

Contribution ID: 13

Type: **not specified**

Double-Higgs production at NLO in the high energy limit

Wednesday 18 July 2018 09:30 (30 minutes)

25'+5'

Presenter: GO, Mishima

Session Classification: Higgs 1

Contribution ID: 14

Type: **not specified**

NLO Higgs boson pair production in the ElectroWeak Chiral Lagrangian framework

Wednesday 18 July 2018 10:00 (30 minutes)

25'+5'

Presenter: CAPOZI, Matteo

Session Classification: Higgs 1

Contribution ID: 15

Type: **not specified**

An new analytical approach to gg->HH at NLO

Wednesday 18 July 2018 10:30 (30 minutes)

25'+5'

Presenter: Dr GIARDINO, Pier Paolo (Brookhaven National Laboratory)

Session Classification: Higgs 1

Contribution ID: 16

Type: **not specified**

Precision Higgs Phenomenology at N3LO

Wednesday 18 July 2018 11:30 (30 minutes)

25+5'

Presenters: CHEN, Xuan (University of Illinois at Chicago (US)); CHEN, xuan (Peking University)

Session Classification: Higgs 2

Contribution ID: 17

Type: **not specified**

Higgs+jet at NLO with full top quark mass dependence

Wednesday 18 July 2018 12:00 (30 minutes)

25'+5'

Presenter: JONES, Stephen (MPI, Munich)

Session Classification: Higgs 2

Contribution ID: **18**

Type: **not specified**

Radiative effects at low energies

Wednesday 18 July 2018 14:00 (30 minutes)

25+5'

Presenter: CZARNECKI, Andrzej

Session Classification: Low Energy

Contribution ID: **19**

Type: **not specified**

Precision predictions for low-energy parity violating observables

Wednesday 18 July 2018 14:30 (30 minutes)

25'+5'

Presenter: FREITAS, Ayres (University of Pittsburgh)

Session Classification: Low Energy

Contribution ID: 20

Type: **not specified**

NLO matching uncertainties in loop-induced processes

Wednesday 18 July 2018 15:00 (30 minutes)

25'+5'

Presenter: KUTTIMALAI, Silvan (II Physikalisches Institut-Fakultaet fuer Physik-Georg-August-U)

Session Classification: Low Energy

Contribution ID: 22

Type: **not specified**

Muon-electron scattering at NNLO

Wednesday 18 July 2018 16:00 (30 minutes)

25'+5'

Presenter: SCHUBERT-MIELKE, Ulrich

Session Classification: Future colliders/multi-loop

Contribution ID: 24

Type: **not specified**

N3LL+NNLO resummation for color singlet production at the LHC

Thursday 19 July 2018 09:30 (30 minutes)

25'+5'

Presenter: RE, Emanuele (CERN)

Session Classification: Resummation 1

Contribution ID: 25

Type: **not specified**

ResBos2 and full color parton showers

Thursday 19 July 2018 10:00 (30 minutes)

25'+5'

Presenter: ISAACSON, Joshua (Fermilab)

Session Classification: Resummation 1

Contribution ID: 26

Type: **not specified**

First resummation of logs in event shapes at sub-leading power

Thursday 19 July 2018 10:30 (30 minutes)

25'+5'

Presenter: Mr VITA, Gherardo (MIT)

Session Classification: Resummation 1

Contribution ID: 27

Type: **not specified**

Automated calculation of two-loops soft functions in SCET

Thursday 19 July 2018 11:30 (30 minutes)

25'+5'

Presenter: RAHN, Rudi (University of Bern)

Session Classification: Resummation 2

Contribution ID: 28

Type: **not specified**

Quasi-transverse distributions - constraints from perturbation theory

Thursday 19 July 2018 12:00 (30 minutes)

25'+5'

Presenter: Dr EBERT, Markus (MIT)

Session Classification: Resummation 2

Contribution ID: 30

Type: **not specified**

NNLO predictions for top-quark pair production with leptonic final states

Thursday 19 July 2018 14:30 (30 minutes)

25'+5'

Presenter: PONCELET, Rene (RWTH Aachen University)**Session Classification:** Heavy Particles

Contribution ID: 31

Type: **not specified**

NNLO soft function for top quark pair production at small q_T

Thursday 19 July 2018 15:00 (30 minutes)

25'+5'

Presenter: SAPETA, Sebastian (IFJ PAN)

Session Classification: Heavy Particles

Contribution ID: 32

Type: **not specified**

NLL power corrections to the N-jettiness subtraction scheme

Thursday 19 July 2018 16:00 (30 minutes)

25'+5'

Presenter: ISGRO, Andrea (Northwestern University)

Session Classification: Subtraction

Contribution ID: 33

Type: **not specified**

Nested soft-collinear subtractions for color singlet production and decay

Thursday 19 July 2018 16:30 (30 minutes)

25'+5'

Presenter: RONTSCH, Raoul**Session Classification:** Subtraction

Contribution ID: 34

Type: **not specified**

Towards differential Higgs production at N3LO

Thursday 19 July 2018 17:00 (30 minutes)

25'+5'

Presenter: DULAT, Falko (SLAC)

Session Classification: Subtraction

Contribution ID: 36

Type: **not specified**

Two-loop amplitudes with numerical unitarity

Friday 20 July 2018 09:30 (30 minutes)

25'+5'

Presenter: ABREU, Samuel (Freiburg University)

Session Classification: Amplitudes 1

Contribution ID: 37

Type: **not specified**

Two-loop five-point helicity amplitudes in QCD via integrand reduction

Friday 20 July 2018 10:00 (30 minutes)

25'+5'

Presenter: HARTANTO, Heribertus Bayu (Durham University)

Session Classification: Amplitudes 1

Contribution ID: 38

Type: **not specified**

Two-loop five-point massless QCD amplitudes within the IBP approach

Friday 20 July 2018 11:00 (30 minutes)

25'+5'

Presenter: MITOV, Alexander (University of Cambridge (GB))

Session Classification: Amplitudes 2

Contribution ID: 39

Type: **not specified**

Numerical Integration of Mellin-Barnes integrals and recent news about Kira

Friday 20 July 2018 11:30 (30 minutes)

25'+5'

Presenter: USOVITSCH, Johann

Session Classification: Amplitudes 2

Contribution ID: 40

Type: **not specified**

Integration-by-parts reduction via algebraic geometry methods

Friday 20 July 2018 12:00 (30 minutes)

25'+5'

Presenter: ZHANG, Yang (KIT - Karlsruhe Institute of Technology (DE))

Session Classification: Amplitudes 2

Contribution ID: 41

Type: **not specified**

Electroweak corrections for future e^+e^- colliders: low-angle Bhaba scattering and charge asymmetry near the Z resonance

*Wednesday 18 July 2018 16:30 (30 minutes)***Presenter:** YOST, Scott Alan (The Citadel - The Military College of South Carolina (US))**Session Classification:** Future colliders/multi-loop

Contribution ID: 42

Type: **not specified**

An NNLO QCD study of diphoton production at the LHC

Wednesday 18 July 2018 17:00 (30 minutes)

25'+5'

Presenter: FERRERA, Giancarlo (University of Milan)

Session Classification: Future colliders/multi-loop

Contribution ID: 44

Type: **not specified**

Soft-gluon and Coulomb corrections to hadronic top-quark pair production beyond NNLO

Thursday 19 July 2018 17:30 (30 minutes)

25'+5'

Presenter: SCHWINN, Christian (RWTH Aachen University)

Session Classification: Subtraction

Contribution ID: 45

Type: **not specified**

Three- and four-loop form factors

Friday 20 July 2018 09:00 (30 minutes)

Presenter: STEINHAUSER, Matthias (KIT)

Session Classification: Amplitudes 1

Contribution ID: 46

Type: **not specified**

Systematic approximation of multi-scale Feynman integrals

Wednesday 18 July 2018 17:30 (30 minutes)

25'+5'

Presenter: HULME, Daniel**Session Classification:** Future colliders/multi-loop

Contribution ID: 47

Type: **not specified**

Workshop information

Tuesday 17 July 2018 09:15 (15 minutes)

Presenter: VON MANTEUFFEL, Andreas (Michigan State University)

Session Classification: Welcome

Contribution ID: 48

Type: **not specified**

High energy limit of QCD beyond Sudakov Approximation

Thursday 19 July 2018 09:00 (30 minutes)

25'+5'

Presenter: Dr LIU, Tao (University of Alberta)

Session Classification: Resummation 1