

Workshop on Standard Model and Beyond

Report of Contributions

Contribution ID: 1

Type: **not specified**

Towards a more robust intermittency analysis technique in heavy ion collisions: achievements and challenges.

Wednesday, August 28, 2024 6:10 PM (30 minutes)

Presenter: DAVIS, Nikolaos (Polish Academy of Sciences (PL))

Contribution ID: 2

Type: **not specified**

Searches for long lived particles: present and future

Wednesday, August 28, 2024 9:00 AM (1 hour)

Presenter: DE ROECK, Albert (CERN)

Contribution ID: 3

Type: **not specified**

Welcome

Monday, August 26, 2024 9:45 AM (15 minutes)

Presenter: ZOUPANOS, George (National Technical Univ. of Athens (GR))

Contribution ID: 4

Type: **not specified**

Recent results from ATLAS

Monday, August 26, 2024 10:00 AM (1 hour)

Primary author: OH, Alexander

Presenter: OH, Alexander

Contribution ID: 5

Type: **not specified**

A tale of two SUSYs

Sunday, September 1, 2024 1:00 PM (30 minutes)

Presenter: NICOLIS, Stam

Contribution ID: 6

Type: **not specified**

Large isospin symmetry breaking in kaon production at high energies

Sunday, September 1, 2024 10:30 AM (30 minutes)

Presenter: GAZDZICKI, Marek (Jan Kochanowski University (PL))

Contribution ID: 8

Type: **not specified**

Prospects for light exotic scalar measurements at the e^+e^- Higgs factory

Tuesday, August 27, 2024 10:00 AM (30 minutes)

Presenter: ZARNECKI, Aleksander Filip (University of Warsaw (PL))

Contribution ID: **10**

Type: **not specified**

Phenomenology of spin-1 resonances at the LHC

Presenter: POROD, Werner Rudolf (Julius Maximilians Universitaet Wuerzburg (DE))

Contribution ID: 11

Type: **not specified**

Highlights from CMS

Monday, August 26, 2024 11:30 AM (1 hour)

Primary author: LANDSBERG, Greg (Brown University (US))

Presenter: LANDSBERG, Greg (Brown University (US))

Contribution ID: 12

Type: **not specified**

Recent Higgs results from ATLAS and CMS

Tuesday, August 27, 2024 9:00 AM (30 minutes)

Presenter: KORTNER, Sandra (Max Planck Society (DE))

Contribution ID: 13

Type: **not specified**

95 GeV scalar and dark matter in the MRSSM

Sunday, September 1, 2024 4:50 PM (30 minutes)

Presenters: Dr KOTLARSKI, Wojciech (National Centre for Nuclear Research); KALINOWSKI, Jan (University of Warsaw (PL))

Contribution ID: 14

Type: **not specified**

Highlights from ALICE

Saturday, August 31, 2024 12:30 PM (1 hour)

Presenter: SCHWEDA, Kai (GSI - Helmholtzzentrum für Schwerionenforschung GmbH (DE))

Contribution ID: 15

Type: **not specified**

String derived Z' model at an upgraded superconducting supercollider

Tuesday, September 3, 2024 9:30 AM (30 minutes)

Presenter: FARAGGI, Alon (University of Liverpool (GB))

Contribution ID: 16

Type: **not specified**

Status of electromagnetic accelerating universe

Tuesday, September 3, 2024 11:50 AM (30 minutes)

Presenter: FRAMPTON, Paul (University of Salento)

Contribution ID: 17

Type: **not specified**

Hierarchies and conformal UV completions

Monday, September 2, 2024 11:45 AM (30 minutes)

Presenter: LINDNER, Manfred (Max-Planck-Institut fuer Kernphysik, Heidelberg, Germany)

Contribution ID: **18**

Type: **not specified**

Probing light new physics via precision observables at low energies

Tuesday, August 27, 2024 6:00 PM (20 minutes)

Presenter: LEVATI, Gabriele (Università degli studi di Padova and INFN Padova)

Contribution ID: 19

Type: **not specified**

Effective field theories and their anomalous dimensions

Sunday, September 1, 2024 5:40 PM (30 minutes)

Presenter: LAZOPOULOS, Achillefs (ETH Zurich)

Contribution ID: 20

Type: **not specified**

Extended scalar sectors from all angles

Tuesday, August 27, 2024 12:00 PM (30 minutes)

Presenter: ROBENS, Tania Natalie (Rudjer Boskovic Institute (HR))

Contribution ID: 21

Type: **not specified**

The rise and fall of the Standard-Model Higgs after inflation

Tuesday, August 27, 2024 9:30 AM (30 minutes)

Presenter: RUBIO, Javier (Universidad Complutense de Madrid)

Contribution ID: 22

Type: **not specified**

The reduced 2HDM

Tuesday, August 27, 2024 10:30 AM (30 minutes)

Presenter: PATELLIS, Gregory (Instituto Superior Técnico, CFTP)

Contribution ID: 23

Type: **not specified**

Indirect dark-matter searches with gamma-rays experiments: status and future plans from 300 KeV to 100 TeV

Wednesday, August 28, 2024 10:30 AM (30 minutes)

Presenter: MORSELLI, Aldo

Contribution ID: 24

Type: **not specified**

Probing ultralight axions with quantum technology

Wednesday, August 28, 2024 12:00 PM (30 minutes)

Primary author: CHAKRABORTI, Sreemanti (IPPP Durham University)

Presenter: CHAKRABORTI, Sreemanti (IPPP Durham University)

Contribution ID: 26

Type: **not specified**

Probing hidden sectors at e+e- colliders via two-particle angular correlations

Saturday, August 31, 2024 6:00 PM (30 minutes)

Presenter: MITSOU, Vasiliki (IFIC - CSIC and Univ. of Valencia (ES))

Contribution ID: 27

Type: **not specified**

Long-lived particle searches with the ILD experiment

Tuesday, August 27, 2024 5:00 PM (20 minutes)

Primary author: KLAMKA, Jan Franciszek (University of Warsaw (PL))

Presenter: KLAMKA, Jan Franciszek (University of Warsaw (PL))

Contribution ID: 28

Type: **not specified**

Testing the far UV of the SM with axions

Wednesday, August 28, 2024 10:00 AM (30 minutes)

Presenter: REIG, Mario (University of Oxford)

Contribution ID: 29

Type: **not specified**

Gravitational dark matter portal In extra dimensions

Thursday, August 29, 2024 5:00 PM (30 minutes)

Primary author: RIUS DIONIS, Nuria (IFIC, Universitat de València - CSIC)

Presenter: RIUS DIONIS, Nuria (IFIC, Universitat de València - CSIC)

Contribution ID: **30**

Type: **not specified**

Probing sterile neutrinos with non-standard interactions

Thursday, August 29, 2024 10:00 AM (30 minutes)

Presenter: DEPPISCH, Frank F

Contribution ID: **31**

Type: **not specified**

Testing an unstable cosmic neutrino background

Thursday, August 29, 2024 10:30 AM (30 minutes)

Primary authors: DI BARI, Pasquale; DI BARI, Pasquale

Presenters: DI BARI, Pasquale; DI BARI, Pasquale; DI BARI, Pasquale (Unknown); DI BARI, Pasquale

Contribution ID: 32

Type: **not specified**

Neutrino mixing beyond Pontecorvo theory, entangled vacuum and all of that!

Wednesday, August 28, 2024 4:00 PM (30 minutes)

Primary author: LUCIANO, Gaetano

Presenters: LUCIANO, Gaetano; LUCIANO, Gaetano; LUCIANO, Giuseppe Gaetano (INFN - National Institute for Nuclear Physics)

Contribution ID: 33

Type: **not specified**

Neutrino electromagnetic interactions: A window to new physics

Sunday, September 1, 2024 12:00 PM (30 minutes)

Presenter: STUDENIKIN, Alexander (M.V. Lomonosov Moscow State University (Moscow, Russia))

Contribution ID: 34

Type: **not specified**

Testing non-oscillation solutions of the LSND and MiniBooNE anomalies

Thursday, August 29, 2024 11:30 AM (30 minutes)

Presenters: LAVIGNAC, Stephane (Unknown); LAVIGNAC, Stephane (IPhT Saclay); LAVIGNAC, Stephane (IPhT Saclay)

Contribution ID: 35

Type: **not specified**

Indications for BSM from unification, vacuum stability and gravitational waves

Monday, September 2, 2024 9:45 AM (30 minutes)

Presenter: KOWALSKA, Kamila (National Centre for Nuclear Research)

Contribution ID: 36

Type: **not specified**

Low-scale leptogenesis and varying relativistic degrees of freedom

Monday, September 2, 2024 10:15 AM (30 minutes)

Presenter: KARAMITROS, Dimitrios (University of Jyväskylä)

Contribution ID: 37

Type: **not specified**

Probe strongly coupled dark sector via gravitational wave

Monday, September 2, 2024 11:15 AM (30 minutes)

Presenter: WANG, ZHIWEI

Contribution ID: **38**

Type: **not specified**

Unification of conformal gravity and internal interactions

Tuesday, September 3, 2024 11:30 AM (20 minutes)

Presenter: ROUMELIOTI, Danai (NTUA)

Contribution ID: 39

Type: **not specified**

Supergeometric quantum effective actions

Monday, September 2, 2024 5:00 PM (20 minutes)

Presenter: GATTUS, Viola (University of Manchester)

Contribution ID: 41

Type: **not specified**

Do we exist because of a gravitational anomaly?

Monday, September 2, 2024 4:30 PM (30 minutes)

Presenter: MAVROMATOS, Nikos (University of London (GB))

Contribution ID: 42

Type: **not specified**

Prospects for gravitational wave signals from grand unification and Inflation

Monday, September 2, 2024 12:15 PM (30 minutes)

Presenter: KERSTEN, Joern (Yonsei)

Contribution ID: 43

Type: **not specified**

Gravitational waves as probes of new physics

Monday, September 2, 2024 12:45 PM (30 minutes)

Presenter: KING, Stephen F (University of Southampton)

Contribution ID: 44

Type: **not specified**

Running vacuum and phantom matter: a challenging solution to the cosmological tensions

Monday, September 2, 2024 4:00 PM (30 minutes)

Presenter: SOLA, Joan (Universitat de Barcelona)

Contribution ID: 45

Type: **not specified**

Constraint on GUT model buildings and its' phenomenological implication

Monday, September 2, 2024 6:40 PM (20 minutes)

Presenter: OUYANG, Ruiwen (National Institute of Chemical Physics and Biophysics)

Contribution ID: 46

Type: **not specified**

Top-down aspects of modular flavor symmetry

Friday, August 30, 2024 9:00 AM (30 minutes)

Presenter: NILLES, Hans Peter (Technische Universitaet Muenchen (DE))

Contribution ID: 47

Type: **not specified**

Modular Invariance and the strong CP problem

Friday, August 30, 2024 9:30 AM (30 minutes)

Presenter: FERUGLIO, Ferruccio

Contribution ID: 48

Type: **not specified**

The basis invariant flavor puzzle

Friday, August 30, 2024 10:00 AM (30 minutes)

Presenter: TRAUTNER, Andreas

Contribution ID: 49

Type: **not specified**

No-signaling-in-time as a condition for macrorealism and flavor oscillations

Wednesday, August 28, 2024 4:30 PM (30 minutes)

Primary author: SMALDONE, Luca (Salerno)

Presenters: SMALDONE, Luca (Charles University); SMALDONE, Luca (Salerno)

Contribution ID: 50

Type: **not specified**

Entanglement in flavored scalar scattering

Friday, August 30, 2024 12:00 PM (30 minutes)

Presenter: SESSOLO, Enrico Maria

Contribution ID: 51

Type: **not specified**

New physics in B to K(K*) nu nubar

Wednesday, August 28, 2024 11:30 AM (30 minutes)

Presenter: VALENCIA, German (Monash University (AU))

Contribution ID: 52

Type: **not specified**

Axion paradigm with "coloured" neutrino masses

Saturday, August 31, 2024 5:40 PM (20 minutes)

Presenter: BATRA, Aditya (CFTP, U. Lisboa)

Contribution ID: 55

Type: **not specified**

Squark production with R-symmetry beyond NLO at the LHC

Sunday, September 1, 2024 4:20 PM (30 minutes)

Presenter: KOTLARSKI, Wojciech (National Centre for Nuclear Research)

Contribution ID: 56

Type: **not specified**

Physics beyond Standard Model from the study of weak interactions

Monday, August 26, 2024 12:30 PM (30 minutes)

Primary author: STOICA, Sabin (International Centre for Advanced Training and Research in Phys)

Presenter: STOICA, Sabin (International Centre for Advanced Training and Research in Phys)

Contribution ID: 57

Type: **not specified**

A theory overview of the muon g-2: from the SM to BSM

Presenter: PARADISI, Paride (University of Padova and INFN)

Contribution ID: 58

Type: **not specified**

Exclusion bounds on Z' bosons

Monday, August 26, 2024 5:50 PM (30 minutes)

Presenter: PÉLI, Zoltán (Institute for Theoretical Physics, ELTE Eötvös Loránd University)

Contribution ID: 59

Type: **not specified**

Electroweak phase transition in maximally symmetric composite Higgs model

Tuesday, August 27, 2024 6:50 PM (30 minutes)

Presenter: MERCHAND MEDINA, Marco Antonio

Contribution ID: **60**

Type: **not specified**

W mass measurements and prospects

Thursday, August 29, 2024 12:00 PM (30 minutes)

Primary authors: BOONEKAMP, Maarten (CEA/Saclay); BOONEKAMP, Maarten (Université Paris-Saclay (FR))

Presenters: BOONEKAMP, Maarten (CEA/Saclay); BOONEKAMP, Maarten (Université Paris-Saclay (FR))

Contribution ID: **61**

Type: **not specified**

W-Boson mass anomaly from $SU(2)_\square$ scalar multiplets

Thursday, August 29, 2024 12:30 PM (30 minutes)

Presenters: WU, Jia-jun; WU, Jia-jun

Contribution ID: 62

Type: **not specified**

Standard Model at large hypercharge

Saturday, August 31, 2024 9:30 AM (30 minutes)

Presenter: ANTIPIN, Oleg (Institut Rudjer Boskovic)

Contribution ID: 63

Type: **not specified**

Oblique parameters in general new physics frameworks

Sunday, September 1, 2024 4:00 PM (20 minutes)

Presenter: FERREIRA SOARES DE ALBERGARIA, Francisco Miguel (CFTP/IST, U. Lisboa)

Contribution ID: **64**

Type: **not specified**

Entanglement in QED scattering processes

Saturday, August 31, 2024 4:30 PM (20 minutes)

Presenter: MICCIOLA, Bruno (Salerno)

Contribution ID: 65

Type: **not specified**

Impact of EW PDFs on muon collider phenomenology

Tuesday, August 27, 2024 12:30 PM (30 minutes)

Presenter: MARZOCCA, David

Contribution ID: **66**

Type: **not specified**

Precision electroweak physics at future colliders

Saturday, August 31, 2024 11:30 AM (30 minutes)

Presenter: VICINI, Alessandro (Università degli Studi e INFN Milano (IT))

Contribution ID: 67

Type: **not specified**

Prospects for constraining light-quark electroweak couplings at e^+e^- colliders

Wednesday, August 28, 2024 5:50 PM (20 minutes)

Presenter: MEKALA, Krzysztof

Contribution ID: **68**

Type: **not specified**

Dark electroweak baryogenesis

Presenter: THOMSON-COOKE, Jasmine

Contribution ID: 69

Type: **not specified**

EW corrections to Bell inequalities and entanglement in $H \rightarrow V V$

Tuesday, August 27, 2024 6:20 PM (30 minutes)

Primary authors: LAMBA, Priyanka; LAMBA, Priyanka; LAMBA, Priyanka (Bologna)

Presenters: LAMBA, Priyanka; LAMBA, Priyanka; LAMBA, Priyanka (Bologna)

Contribution ID: 70

Type: **not specified**

Realising dark matter and PTA detected signal via dark branes

Tuesday, August 27, 2024 11:30 AM (30 minutes)

Presenter: KOUTROULIS, Fotios (Warsaw University)

Contribution ID: 71

Type: **not specified**

Natural alignment and CP violation beyond the Standard Model

Saturday, August 31, 2024 10:30 AM (30 minutes)

Presenter: PILAFTSIS, Apostolos (University of Manchester (GB))

Contribution ID: 72

Type: **not specified**

Dark energy source from a new confining force

Presenter: KIM, Jih E. (Kyung Hee University)

Contribution ID: 73

Type: **not specified**

Non-gravitational dark energy signals under a gauge symmetry

Saturday, August 31, 2024 10:00 AM (30 minutes)

Presenter: LEE, Hye-Sung (KAIST)

Contribution ID: 74

Type: **not specified**

F-term hybrid inflation and SUSY breaking

Friday, August 30, 2024 1:00 PM (30 minutes)

Primary author: PALLIS, Constantinos

Presenter: PALLIS, Constantinos

Contribution ID: 75

Type: **not specified**

Theta-vacua and low energy particle spectrum

Presenter: SAKHELASHVILI, Otari (Sydney University)

Contribution ID: 76

Type: **not specified**

Wave-packet effects a solution for isospin anomalies in vector-meson decay

Sunday, September 1, 2024 10:00 AM (30 minutes)

Presenter: NISHIWAKI, Kenji (Shiv Nadar Institute of Eminence)

Contribution ID: 77

Type: **not specified**

Approximate SU(5), fine structure constants, several fundamental scales

Sunday, September 1, 2024 12:30 PM (30 minutes)

Presenter: NIELSEN, Holger Bech (Niels Bohr Institute Theory)

Contribution ID: 78

Type: **not specified**

Fibre inflation in large volume compactification

Presenter: LEONTARIS, George (University of Ioannina (GR))

Contribution ID: **80**

Type: **not specified**

Aspects of vector-like quarks

Saturday, August 31, 2024 12:00 PM (30 minutes)

Presenter: BRANCO, Gustavo (Instituto Superior Tecnico)

Contribution ID: **81**

Type: **not specified**

Prospects for new glueballs and exotics searches

Monday, September 2, 2024 9:15 AM (30 minutes)

Primary authors: FRERE, Jean-Marie (Service de Physique des Particules Elementaires); FRERE, Jean-Marie

Presenters: FRERE, Jean-Marie (Service de Physique des Particules Elementaires); FRERE, Jean-Marie

Contribution ID: **82**

Type: **not specified**

Higher order QCD

Monday, August 26, 2024 4:00 PM (30 minutes)

Primary author: MARQUARD, Peter (DESY)

Presenter: MARQUARD, Peter (DESY)

Contribution ID: **83**

Type: **not specified**

Three-particle entanglement in particle decay and scattering

Friday, August 30, 2024 12:30 PM (30 minutes)

Presenter: SAKURAI, Kazuki (King's College London)

Contribution ID: **84**

Type: **not specified**

Grand unification, neutrino mass, LHC and all that

Presenter: SENJANOVIC, Goran

Contribution ID: 85

Type: **not specified**

Anomalous Z' model

Tuesday, September 3, 2024 10:00 AM (30 minutes)

Presenter: BENAKLI, Karim (CNRS)

Contribution ID: **86**

Type: **not specified**

SUSY in ATLAS and CMS

Wednesday, August 28, 2024 12:30 PM (30 minutes)

Presenter: MINO, Yuya (Kyoto University (JP))

Contribution ID: 87

Type: **not specified**

Search for physics beyond the Standard Model at NA62

Monday, August 26, 2024 5:20 PM (30 minutes)

Presenter: ZAMKOVSKY, Michal (CERN)

Contribution ID: **88**

Type: **not specified**

The MoEDAL-MAPP New physics search facility at the LHC - transcending the Standard Model

Monday, August 26, 2024 4:30 PM (30 minutes)

Presenter: PINFOLD, James (University of Alberta (CA))

Contribution ID: 89

Type: **not specified**

Taming the little SUSY hierarchy with the quiver supersymmetric Standard Model

Thursday, August 29, 2024 1:00 PM (30 minutes)

Presenter: OKUMURA, Ken-ichi (Kyushu University)

Contribution ID: **91**

Type: **not specified**

ATOMKI nuclear anomalies and (B-L)

Wednesday, August 28, 2024 5:00 PM (30 minutes)

Primary author: RAFAEL JOAQUIM, Filipe

Presenter: RAFAEL JOAQUIM, Filipe

Contribution ID: 92

Type: **not specified**

What are the big questions in neutrino physics

Thursday, August 29, 2024 9:00 AM (1 hour)

Presenter: BLONDEL, Alain (Universite de Geneve (CH))

Contribution ID: 93

Type: **not specified**

Dark matter in ATLAS and CMS

Saturday, August 31, 2024 9:00 AM (30 minutes)

Presenter: HUANG, Xinhui (Chinese Academy of Sciences (CN))

Contribution ID: 94

Type: **not specified**

Highlights from the Corfu Future Accelerators Workshop

Sunday, September 1, 2024 11:30 AM (30 minutes)

Presenter: TORRE, Riccardo (Dipartimento di Fisica - Università di Pisa and INFN Sezione di Pisa)

Contribution ID: 95

Type: **not specified**

Search for a new scalar or pseudoscalar heavy Higgs boson using production of four top quarks at the LHC

Tuesday, August 27, 2024 5:20 PM (20 minutes)

Presenter: CHAUHAN, Chainika (Charles University (CZ))

Contribution ID: 96

Type: **not specified**

Postinflationary production of particle dark matter

Presenter: LALAK, Zygmunt (Faculty of Physics)

Contribution ID: 97

Type: **not specified**

Exotics and BSM (non SUSY, non DM) in ATLAS and CMS

Wednesday, August 28, 2024 1:00 PM (30 minutes)

Primary author: PERROTTA, Andrea (INFN Bologna)

Presenters: PERROTTA, Andrea (Universita e INFN, Bologna (IT)); PERROTTA, Andrea (Istituto Nazionale di Fisica Nucleare (INFN)); PERROTTA, Andrea; PERROTTA, Andrea (INFN Bologna)

Contribution ID: 98

Type: **not specified**

SO(10) gauge unification to go beyond the standard model

Monday, September 2, 2024 5:20 PM (30 minutes)

Presenter: BUCCELLA, Franco (Unknown)

Contribution ID: 99

Type: **not specified**

Naturalness, renormalization, and the cosmological constant problem

Saturday, August 31, 2024 4:50 PM (30 minutes)

Presenter: BRANCHINA, Vincenzo (Universita e INFN (IT))

Contribution ID: 100

Type: **not specified**

Non-decoupling of charged scalars in Higgs decay and symmetries of the scalar potential

Tuesday, August 27, 2024 1:00 PM (30 minutes)

Primary author: BHATTACHARYYA, Gautam

Presenter: BHATTACHARYYA, Gautam

Contribution ID: **101**

Type: **not specified**

Leptogenesis in models with extended gauge symmetries

Saturday, August 31, 2024 4:00 PM (30 minutes)

Presenter: MALINSKY, Michal (Charles University (CZ))

Contribution ID: **102**

Type: **not specified**

Recent results from LHCb

Thursday, August 29, 2024 4:00 PM (1 hour)

Presenter: XU, Menglin (University of Warwick (GB))

Contribution ID: **103**

Type: **not specified**

On scalar dark matter, gravitational waves and black hole binaries

Thursday, August 29, 2024 5:30 PM (30 minutes)

Presenter: GORBUNOV, Dmitry (Russian Academy of Sciences (RU))

Contribution ID: **104**

Type: **not specified**

FCC status, time line, accelerator challenges, etc

Tuesday, August 27, 2024 4:00 PM (1 hour)

Primary author: ROY, Ghislain (CERN)

Presenter: ROY, Ghislain (CERN)

Contribution ID: **105**

Type: **not specified**

LHC & HL-LHC status

Tuesday, September 3, 2024 10:30 AM (30 minutes)

Presenter: PAPAPHILIPPOU, Yannis (CERN)

Contribution ID: **106**

Type: **not specified**

The gravitational form factors of hadrons from CFT in momentum space and the QCD dilaton

Monday, September 2, 2024 6:10 PM (30 minutes)

Presenter: CORIANÒ, Claudio (INFN Lecce)

Contribution ID: **107**

Type: **not specified**

Exploring the flavor symmetry landscape

Friday, August 30, 2024 10:30 AM (30 minutes)

Presenter: GLIOTI, Alfredo (IPhT)

Contribution ID: **108**

Type: **not specified**

Flavor in SU(5) finite grand unified models

Friday, August 30, 2024 11:30 AM (30 minutes)

Presenter: MONDRAGON, Myriam (Universidad Nacional Autonoma de Mexico UNAM)

Contribution ID: **109**

Type: **not specified**

Closing

Tuesday, September 3, 2024 12:20 PM (10 minutes)

Presenter: ZOUPANOS, George (National Technical Univ. of Athens (GR))