

**Workshop in High Energy
Physics Phenomenology
(WHEPP XVII), IIT
Gandhinagar**

Report of Contributions

Contribution ID: 1

Type: **not specified**

Registration

Tuesday 2 January 2024 14:00 (3 hours)

Contribution ID: 2

Type: **not specified**

Welcome address

Wednesday 3 January 2024 09:00 (30 minutes)

Contribution ID: 3

Type: **not specified**

Flavor Physics experimental overview

Presenter: TRABELSI, Karim (Ecole Polytechnique Federale de Lausanne (CH))

Contribution ID: 4

Type: **not specified**

Flavour Physics Theory: Recent anomalies and their implications

Presenter: MAHMOUDI, Nazila (LPC Clermont & CERN)

Contribution ID: 5

Type: **not specified**

SM and BSM results at the LHC

Presenter: BHATTACHARYA, Satyaki (Saha Institute of Nuclear Physics (IN))

Contribution ID: 6

Type: **not specified**

Multi-messenger

Friday 5 January 2024 14:00 (1h 30m)

Presenters: GOPAKUMAR, A.; Dr B, Hari Haran

Session Classification: WG5: Astroparticle

Contribution ID: 7

Type: **not specified**

Phase Transition and GW

Saturday 6 January 2024 16:00 (1h 30m)

Presenter: GHOSHAL, Anish (University of Warsaw, Poland)

Session Classification: WG3: Neutrino

Contribution ID: 8

Type: **not specified**

Detector Development

Saturday 6 January 2024 14:00 (1h 30m)

Presenter: MOHANTY, Gagan (Tata Inst. of Fundamental Research (IN))

Session Classification: WG1: SM & BSM

Contribution ID: 9

Type: **not specified**

Precision electroweak physics at present and future colliders

Friday 5 January 2024 11:00 (1h 30m)

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

Session Classification: Plenary:

Contribution ID: **10**

Type: **not specified**

Leptogenesis

Saturday 6 January 2024 14:00 (1h 30m)

Presenters: Dr BORAH, Debasish (Indian Institute of Technology Guwahati); SAHU, Narendra (IIT Hyderabad)

Session Classification: WG3: Neutrino

Contribution ID: 11

Type: **not specified**

QCD corrections in Higgs decay

Saturday 6 January 2024 14:00 (1h 30m)

Presenter: Dr SHIVAJI, Ambresh (IISER Mohali)

Session Classification: WG4: QCD & Heavy Ion

Contribution ID: 12

Type: **not specified**

Neutrinos: Current Constraints and Future Prospects

Presenter: Prof. DEPPISCH, Frank F

Session Classification: Plenary:

Contribution ID: 13

Type: **not specified**

New Ideas in DM

Saturday 6 January 2024 14:00 (1h 30m)

Presenters: BHATIA, Disha; DAS, Nayan (Indian Institute of Technology, Guwahati); MOHARANA, Reetanjali (University of Johannesburg)

Session Classification: WG5: Astroparticle

Contribution ID: **14**

Type: **not specified**

DM Pheno

Saturday 6 January 2024 16:00 (1h 30m)

Presenters: CHAKRABORTY, Sabyasachi (Florida State University); BHATTACHARYA, Subhadditya

Session Classification: WG1: SM & BSM

Contribution ID: 15

Type: **not specified**

Neutrinos: Current Constraints and Future Prospects

Friday 5 January 2024 09:30 (1 hour)

Presenter: Prof. DEPPISCH, Frank F

Session Classification: Plenary:

Contribution ID: 16

Type: **not specified**

Scattering amplitudes

Saturday 6 January 2024 16:00 (1h 30m)

Presenter: Dr TRIPATHI, Anurag (IIT Hyderabad)

Session Classification: WG4: QCD & Heavy Ion

Contribution ID: 17

Type: **not specified**

EW Precision

Sunday 7 January 2024 14:00 (1h 30m)

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

Session Classification: WG1: SM & BSM

Contribution ID: **18**

Type: **not specified**

Neutrino probes to BSM physics

Sunday 7 January 2024 14:00 (1h 30m)

Presenter: MOHANTA, Rukmani (University of Hyderabad)

Session Classification: WG3: Neutrino

Contribution ID: 19

Type: **not specified**

Quarkonia spectral function from lattice QCD

Sunday 7 January 2024 14:00 (1h 30m)

Presenter: BALA, Dibyendu (Bielefeld University)

Session Classification: WG2+WG4

Contribution ID: 20

Type: **not specified**

Overview of SM and BSM Physics at the LHC

Thursday 4 January 2024 09:30 (1 hour)

Presenter: BHATTACHARYA, Satyaki (Saha Institute of Nuclear Physics (IN))

Session Classification: Plenary:

Contribution ID: 21

Type: **not specified**

Anomalies & Tensions II

Sunday 7 January 2024 14:00 (1h 30m)

Presenters: SAHA, Indrajit (IIT Guwahati, India); SAHA, Priyanka; KRISHNAN, chethan

Session Classification: WG5: Astroparticle

Contribution ID: 22

Type: **not specified**

Issues in Neutrino Physics

Wednesday 3 January 2024 11:00 (1h 30m)

Presenter: CHUN, Eung Jin (Korea Institute for Advanced Study)

Session Classification: Plenary:

Contribution ID: 23

Type: **not specified**

DM Expt

Sunday 7 January 2024 16:00 (1h 30m)

Presenters: KOMARAGIRI, Jyothsna Rani (Indian Institute of Science (IISc) (IN)); BHATTACHARYA, Satyaki (Saha Institute of Nuclear Physics (IN))

Session Classification: WG1: SM & BSM

Contribution ID: 24

Type: **not specified**

Supernova neutrinos

Sunday 7 January 2024 16:00 (1h 30m)

Presenters: CHAKRABORTY, Madhurima; CHAKRABORTY, Sovan (Indian Institute of Technology)

Session Classification: WG3+WG5

Contribution ID: 25

Type: **not specified**

Heavy quarks in thermal QCD

Sunday 7 January 2024 16:00 (1h 30m)

Presenter: HAQUE, Najmul (NISER, India)

Session Classification: WG2+WG4

Contribution ID: 26

Type: **not specified**

Flavour Physics Theory: Current Status and Future Prospects

Thursday 4 January 2024 11:00 (1h 30m)

Presenter: MAHMOUDI, Nazila (LPC Clermont & CERN)

Session Classification: Plenary:

Contribution ID: 27

Type: **not specified**

Other BSM (Anomalous couplings)

Tuesday 9 January 2024 09:00 (1h 30m)

Presenters: SINGH, Ritesh Kumar; DAS, Santosh Kumar (School of Physical Science, Indian Institute of Technology Goa, India)

Session Classification: WG1: SM & BSM

Contribution ID: 28

Type: **not specified**

Flavor Physics Experiments: Recent Results and Future Projections

Wednesday 3 January 2024 09:30 (1 hour)

Presenter: TRABELSI, Karim (Ecole Polytechnique Federale de Lausanne (CH))

Session Classification: Plenary:

Contribution ID: 29

Type: **not specified**

Neutrinos and EFTs

Tuesday 9 January 2024 09:00 (1h 30m)

Presenter: HATI, Chandan

Session Classification: WG3: Neutrino

Contribution ID: 30

Type: **not specified**

Relativistic Spin hydro

Tuesday 9 January 2024 09:00 (1h 30m)

Presenter: Dr JAISWAL, Amaresh (National Institute of Science Education and Research)

Session Classification: WG4: QCD & Heavy Ion

Contribution ID: **31**

Type: **not specified**

Astroparticle Experiment

Saturday 6 January 2024 09:30 (1 hour)

Presenter: MORE, Surhud

Session Classification: Plenary:

Contribution ID: 32

Type: **not specified**

Astroparticle Theory

Saturday 6 January 2024 11:00 (1h 30m)

Presenter: SEN, Anjan Ananda

Session Classification: Plenary:

Contribution ID: 33

Type: **not specified**

Multimessenger II

Tuesday 9 January 2024 09:00 (1h 30m)

Presenters: Dr LAHA, Ranjan (Indian Institute of science (IN)); MOHARANA, Reetanjali (University of Johannesburg)

Session Classification: WG5: Astroparticle

Contribution ID: 34

Type: **not specified**

QCD Theory

Sunday 7 January 2024 09:30 (1 hour)

Presenter: ABREU, Samuel (CERN)

Session Classification: Plenary:

Contribution ID: 35

Type: **not specified**

Machine Learning

Tuesday 9 January 2024 11:00 (1h 30m)

Presenters: KONAR, Partha (Physical Research Laboratory, Ahmedabad, Gujarat-380 009, INDIA); BHAT-TACHARYA, Satyaki (Saha Institute of Nuclear Physics (IN))

Session Classification: WG1: SM & BSM

Contribution ID: 36

Type: **not specified**

Quark Gluon Plasma

Sunday 7 January 2024 11:00 (1h 30m)

Presenter: DATTA, Saumen (Tata Institute of Fundamental Research)

Session Classification: Plenary:

Contribution ID: 37

Type: **not specified**

High Energy Neutrinos

Tuesday 9 January 2024 11:00 (1h 30m)

Presenter: MOHARANA, Reetanjali (University of Johannesburg)

Session Classification: WG3+WG5

Contribution ID: 38

Type: **not specified**

Perturbative QCD

Tuesday 9 January 2024 11:00 (1h 30m)

Presenters: SARKAR, Ratan (Indian Institute of Science, Bangalore); PAL, Sourav (Physical Research Laboratory); DATTA, Sudeepan

Session Classification: WG4: QCD & Heavy Ion

Contribution ID: **39**

Type: **not specified**

MG-1

Tuesday 9 January 2024 14:00 (1h 30m)

Presenter: ..., Benjamin

Session Classification: WG1: SM & BSM

Contribution ID: 40

Type: **not specified**

Perturbative QCD

Tuesday 9 January 2024 14:00 (1h 30m)

Presenters: ABREU, Samuel (CERN); SETH, Satyajit

Session Classification: WG4: QCD & Heavy Ion

Contribution ID: 41

Type: **not specified**

Astroparticle

Tuesday 9 January 2024 14:00 (1h 30m)

Presenters: Mr RINGE, Dhruv (Indian Institute of Technology Indore); RAJ, Nirmal (TRIUMF); Dr LAHA, Ranjan (Indian Institute of science (IN))

Session Classification: WG5: Astroparticle

Contribution ID: 42

Type: **not specified**

Higgs Couplings: Present and Future

Wednesday 10 January 2024 09:00 (1h 30m)

Presenter: DEWANJEE, Ram Krishna (Tata Inst. of Fundamental Research (IN))

Session Classification: WG1: SM & BSM

Contribution ID: 43

Type: **not specified**

Thermal QCD

Wednesday 10 January 2024 09:00 (1h 30m)

Presenter: HAQUE, Najmul (NISER, India)

Session Classification: WG4: QCD & Heavy Ion

Contribution ID: 44

Type: **not specified**

Fermions in relativistic heavy-ion collisions

Wednesday 10 January 2024 11:00 (1h 30m)

Presenter: SINGH, Rajeev

Session Classification: WG4: QCD & Heavy Ion

Contribution ID: 45

Type: **not specified**

MG-2

Wednesday 10 January 2024 14:00 (1h 30m)

Presenter: ..., Benjamin

Session Classification: WG1: SM & BSM

Contribution ID: 46

Type: **not specified**

Magnetohydrodynamics

Wednesday 10 January 2024 14:00 (1h 30m)

Presenter: DASH, Ashutosh (Frankfurt University)

Session Classification: WG4: QCD & Heavy Ion

Contribution ID: 47

Type: **not specified**

Heavy quark and transport

Wednesday 10 January 2024 16:00 (1h 30m)

Presenter: MISHRA, Hiranmaya

Session Classification: WG4: QCD & Heavy Ion

Contribution ID: 48

Type: **not specified**

Future Collider

Wednesday 3 January 2024 14:00 (1h 30m)

Presenters: BHATTACHERJEE, BIPLOB (Indian Institute of Science); BANERJEE, Shankha (Institute of Mathematical Sciences (IN))

Session Classification: WG1: SM & BSM

Contribution ID: 49

Type: **not specified**

Semi-leptonic/Radiative b-decays

Wednesday 3 January 2024 14:00 (1h 30m)

Presenters: TRABELSI, Karim (Ecole Polytechnique Federale de Lausanne (CH)); MAHMOUDI, Nazila (Universite Claude Bernard Lyon I (FR))

Session Classification: WG2: Flavor

Contribution ID: 50

Type: **not specified**

Oscillations related results and future expectations

Wednesday 3 January 2024 14:00 (1h 30m)

Presenter: Dr RAUT, Sushant (Krea University, India)

Session Classification: WG3: Neutrino

Contribution ID: 51

Type: **not specified**

Effective theories in thermal QCD

Wednesday 3 January 2024 14:00 (1h 30m)

Presenter: SEN, Pritam (Tata Institute of Fundamental Research)

Session Classification: WG4: QCD & Heavy Ion

Contribution ID: 52

Type: **not specified**

EFT

Wednesday 3 January 2024 16:00 (1h 30m)

Presenters: GUPTA, Rick S; CHAKRABORTY, Sabyasachi (Florida State University); RAY, Tirtha Sankar (IIT Kharagpur, India)

Session Classification: WG1: SM & BSM

Contribution ID: 53

Type: **not specified**

Flavour & BSM Synergy

Wednesday 3 January 2024 16:00 (1h 30m)

Presenters: MOHANTA, Rukmani (University of Hyderabad); MANDAL, Rusa

Session Classification: WG2: Flavor

Contribution ID: 54

Type: **not specified**

Neutrino Decays and Oscillations

Wednesday 3 January 2024 16:00 (1h 30m)

Presenters: CHATTOPADHYAY, Dibya Sankar (Tata Institute of Fundamental Research, Mumbai, India); UMASANKAR, Sankagiri (IIT Bombay)

Session Classification: WG3: Neutrino

Contribution ID: 55

Type: **not specified**

Effective theories in thermal QCD

Wednesday 3 January 2024 16:00 (1h 30m)

Presenter: SEN, Pritam (Tata Institute of Fundamental Research)

Session Classification: WG4: QCD & Heavy Ion

Contribution ID: 56

Type: **not specified**

BSM Higgs Theory

Thursday 4 January 2024 14:00 (1h 30m)

Presenters: GUPTA, Rick S; BANERJEE, Shankha (Institute of Mathematical Sciences (IN))

Session Classification: WG1: SM & BSM

Contribution ID: 57

Type: **not specified**

Non-leptonic b-decays

Thursday 4 January 2024 14:00 (1h 30m)

Presenters: GIRI, Anjan; MOHANTY, Gagan (Tata Inst. of Fundamental Research (IN)); SINHA, Rahul (The Institute of Mathematical Sciences)

Session Classification: WG2: Flavor

Contribution ID: 58

Type: **not specified**

Neutrino-inspired Model Building

Thursday 4 January 2024 14:00 (1h 30m)

Presenters: KRISHNAN, R; PATRA, Sudhanwa (Siksha 'O' Anusandhan University, Bhubaneswar, India)

Session Classification: WG3: Neutrino

Contribution ID: 59

Type: **not specified**

Quarkonium & jet physics

Thursday 4 January 2024 14:00 (1h 30m)

Presenter: SHARMA, Rishi (TIFR)

Session Classification: WG4: QCD & Heavy Ion

Contribution ID: **60**

Type: **not specified**

Astroparticle models

Thursday 4 January 2024 14:00 (1h 30m)

Presenter: YAJNIK, Urjit

Session Classification: WG5: Astroparticle

Contribution ID: **61**

Type: **not specified**

Top Physics

Thursday 4 January 2024 16:00 (1h 30m)

Presenters: SINGH, Ritesh Kumar; MITRA, Soureek (KIT - Karlsruhe Institute of Technology (DE))

Session Classification: WG1: SM & BSM

Contribution ID: **62**

Type: **not specified**

Charm Physics

Thursday 4 January 2024 16:00 (1h 30m)

Presenter: Dr BHARDWAJ, Vishal (IISER Mohali)

Session Classification: WG2: Flavor

Contribution ID: 63

Type: **not specified**

Heavy neutrinos phenomenology/Neutrinos at Colliders

Thursday 4 January 2024 16:00 (1h 30m)

Presenter: Dr MITRA, Manimala (Institute of Physics (IOP))

Session Classification: WG3: Neutrino

Contribution ID: 64

Type: **not specified**

Heavy quark diffusion in Glasma

Thursday 4 January 2024 16:00 (1h 30m)

Presenters: Ms -, Pooja (Indian Institute of Technology Goa); B.R., Vyshakh

Session Classification: WG4: QCD & Heavy Ion

Contribution ID: 65

Type: **not specified**

New Frontiers

Thursday 4 January 2024 16:00 (1h 30m)

Presenters: Dr TARAFDAR, Pratik (IMSc); MUKHERJEE, Suvodip (IAP)

Session Classification: WG5: Astroparticle

Contribution ID: 66

Type: **not specified**

Kaon and Tau Physics

Friday 5 January 2024 14:00 (1h 30m)

Presenter: SONI, Amarjit

Session Classification: WG2: Flavor

Contribution ID: 67

Type: **not specified**

Neutrino and Dark Matter

Friday 5 January 2024 14:00 (1h 30m)

Presenters: ROSHAN, Rishav (Indian Institute of Technology Guwahati); BHATTACHARYA, Subhaditya

Session Classification: WG3: Neutrino

Contribution ID: **68**

Type: **not specified**

Experiments

Friday 5 January 2024 14:00 (1h 30m)

Presenter: JENA, Chitrasen (IISER Tirupati)

Session Classification: WG4: QCD & Heavy Ion

Contribution ID: 69

Type: **not specified**

Multi-messenger

Presenter: BALAKRISHNAN, Hariharan

Session Classification: WG5: Astroparticle

Contribution ID: 70

Type: **not specified**

Present and Future Collider (Expt)

Friday 5 January 2024 16:00 (1h 30m)

Presenter: Dr SAMUI, Tousik (Indian Institute of Science Education and Research Kolkata)

Session Classification: WG1: SM & BSM

Contribution ID: 71

Type: **not specified**

Tau Lepton Flavor Violation

Friday 5 January 2024 16:00 (1h 30m)

Presenter: BANERJEE, Swagato (University of Louisville (US))

Session Classification: WG2: Flavor

Contribution ID: 72

Type: **not specified**

Neutrino Nucleus Interactions

Friday 5 January 2024 16:00 (1h 30m)

Presenters: FATIMA, Atika; ATHAR, Sajjad

Session Classification: WG3: Neutrino

Contribution ID: 73

Type: **not specified**

Experiments

Friday 5 January 2024 16:00 (1h 30m)

Presenters: SAHOO, Raghunath (Indian Institute of Technology Indore (IN)); DASH, Sadhana (IIT-Indian Institute of Technology (IN))

Session Classification: WG4: QCD & Heavy Ion

Contribution ID: 74

Type: **not specified**

Anomalies & Tensions

Friday 5 January 2024 16:00 (1h 30m)

Presenters: LEWIS, Geraint; Prof. PAL, Supratik; AHMED BORBORUAH, Zafri (IIT Bombay)

Session Classification: WG5: Astroparticle

Contribution ID: 75

Type: **not specified**

WG2 Flavor Summary

Thursday 11 January 2024 09:45 (30 minutes)

Session Classification: WG2: Flavor

Contribution ID: 76

Type: **not specified**

WG3 Neutrino Summary

Thursday 11 January 2024 10:45 (30 minutes)

Session Classification: WG3: Neutrino

Contribution ID: 77

Type: **not specified**

QCD & Heavy Ion: WG4 Summary

Thursday 11 January 2024 11:15 (30 minutes)

Session Classification: WG4: QCD & Heavy Ion

Contribution ID: 78

Type: **not specified**

Astroparticle: WG5: Summary

Thursday 11 January 2024 11:45 (30 minutes)

Session Classification: WG5: Astroparticle

Contribution ID: 79

Type: **not specified**

SM & BSM: WG1 Summary

Thursday 11 January 2024 09:15 (30 minutes)

Session Classification: WG1: SM & BSM