

Beyond Standard Model: From Theory to Experiment (BSM- 2025)

Report of Contributions

Contribution ID: 1

Type: **not specified**

ATLAS Searches for Supersymmetry and BSM Higgs

Monday, 6 October 2025 10:00 (30 minutes)

Presenter: SAWADA, Ryu

Session Classification: Session 1

Contribution ID: 2

Type: **not specified**

Higgs Boson pair production at CMS

Monday, 6 October 2025 10:30 (30 minutes)

Presenter: AHMAD, Muhammad

Session Classification: Session 1

Contribution ID: 3

Type: **not specified**

Recent results and perspectives from CMS

Presenter: BARTEK, Rachel

Session Classification: Session 1

Contribution ID: 4

Type: **not specified**

Ten years of Gravitational-Wave Observations: Contributions and Perspectives from the Virgo Experiment

Presenter: SEQUINO, Valeria

Session Classification: Session 2

Contribution ID: 5

Type: **not specified**

Analysis of inflationary models in higher-dimensional uniform inflation

Monday, 6 October 2025 11:30 (30 minutes)

Presenter: HIROSE, Takuya

Session Classification: Session 2

Contribution ID: 6

Type: **not specified**

Probing the Electroweak Phase Transition in Dark Sector Models

Monday, 6 October 2025 12:00 (30 minutes)

Presenter: RAZZAQ, Maimoona

Session Classification: Session 2

Contribution ID: 7

Type: **not specified**

An ALP and dark matter explanation of the $B \rightarrow K$ invisible and the $B \rightarrow K \pi$ puzzles.

Monday, 6 October 2025 15:00 (30 minutes)

Presenter: DATTA (ONLINE), Alakabha

Session Classification: Session 3

Contribution ID: 8

Type: **not specified**

Axion-like-particle dark matter beyond the standard paradigm

Monday, 6 October 2025 14:30 (30 minutes)

Presenter: ERÖNCEL, Cem

Session Classification: Session 3

Contribution ID: 9

Type: **not specified**

Phenomenological Study of the Nambu–Jona-Lasinio Composite Model at the LHC and HL-LHC

Monday, 6 October 2025 15:30 (30 minutes)

Presenter: AJMAL, Sehar

Session Classification: Session 3

Contribution ID: 10

Type: **not specified**

Measurements of the Cabibbo-Kobayashi-Maskawa quark-mixing matrix at Belle and Belle II

Presenter: PASSERI, Antonio

Session Classification: Session 4

Contribution ID: 11

Type: **not specified**

BSM searches at LHCb

Presenter: XOSE RODRIGUEZ FERNANDEZ, Emilio

Session Classification: Session 4

Contribution ID: 12

Type: **not specified**

Measurements of electroweak penguin and lepton-flavour violating B decays to final states with missing energy at Belle and Belle II

Presenter: KOVALENKO, Evgeniy

Session Classification: Session 4

Contribution ID: 13

Type: **not specified**

Holographic drag force with translational symmetry breaking

Monday, 6 October 2025 12:30 (30 minutes)

Presenter: TAHERY, Sara

Session Classification: Session 2

Contribution ID: 14

Type: **not specified**

Global Aspects of 3-Form Fields in Axion Yang-Mills Systems

Tuesday, 7 October 2025 09:30 (30 minutes)

Presenter: ANBER, Mohamed

Session Classification: Session 1

Contribution ID: 15

Type: **not specified**

The 33311 Left-Right Bilepton Model

Tuesday, 7 October 2025 10:00 (30 minutes)

Presenter: FRAMPTON, Paul

Session Classification: Session 1

Contribution ID: 16

Type: **not specified**

Holographic dark energy for inflationary cosmology and the verification of the trans-Planckian censorship conjecture

Tuesday, 7 October 2025 12:30 (30 minutes)

Presenter: ONLINE, Kazuharu Bamba

Session Classification: Session 2

Contribution ID: 17

Type: **not specified**

Ten years of Gravitational-Wave Observations: Contributions and Perspectives from the Virgo Experiment

Thursday, 9 October 2025 11:30 (30 minutes)

Presenter: SEQUINO, Valeria

Session Classification: Session 2

Contribution ID: **18**

Type: **not specified**

Search for the Dark Sector particles with molecules

Tuesday, 7 October 2025 11:30 (30 minutes)

Presenter: ZAKHAROVA, Anna

Session Classification: Session 2

Contribution ID: **19**

Type: **not specified**

The Light Dark Matter eXperiment

Tuesday, 7 October 2025 12:00 (30 minutes)

Presenter: ALMOS VAMI, Tamas

Session Classification: Session 2

Contribution ID: 20

Type: **not specified**

Highlights on Higgs physics with ATLAS

Tuesday, 7 October 2025 14:30 (30 minutes)

Presenter: TARIQ, Khuram

Session Classification: Session 3

Contribution ID: 21

Type: **not specified**

Highlights of recent electroweak and QCD measurements in ATLAS

Tuesday, 7 October 2025 15:00 (30 minutes)

Presenter: LIU, Yanwen

Session Classification: Session 3

Contribution ID: 22

Type: **not specified**

Searches for new phenomena beyond the Standard Model using the ATLAS detector

Tuesday, 7 October 2025 15:30 (30 minutes)

Presenter: DEEPAK PANDYA, Hitarthi

Session Classification: Session 3

Contribution ID: 23

Type: **not specified**

Instabiity problem in Ostrogradsky formalism

Presenter: KAMALOV, Timur

Session Classification: Session 4

Contribution ID: 24

Type: **not specified**

Universal Mass Equation for Equal-Quantum Excited States

Presenter: STRAKOVSKY, Igor

Session Classification: Session 4

Contribution ID: 25

Type: **not specified**

Field source dependence (including electric charge) on its velocity. Different values of the Rydberg constant

Presenter: LUNIN (ONLINE), Yevhen

Session Classification: Session 4

Contribution ID: 26

Type: **not specified**

Measurements of the Cabibbo-Kobayashi-Maskawa quark-mixing matrix at Belle and Belle II

Wednesday, 8 October 2025 09:30 (30 minutes)

Presenter: PASSERI, Antonio

Session Classification: Session 1

Contribution ID: 27

Type: **not specified**

BSM searches at LHCb

Presenter: XOSE RODRIGUEZ FERNANDEZ, Emilio

Session Classification: Session 1

Contribution ID: 28

Type: **not specified**

2. Measurements of electroweak penguin and lepton-flavour violating B decays to final states with missing energy at Belle and Belle II

Presenter: KOVALENKO, Evgeniy

Session Classification: Session 1

Contribution ID: 29

Type: **not specified**

BSM searches at LHCb

Wednesday, 8 October 2025 10:30 (30 minutes)

Presenter: XOSE RODRIGUEZ FERNANDEZ, Emilio

Session Classification: Session 1

Contribution ID: 30

Type: **not specified**

Measurements of electroweak penguin and lepton-flavour violating B decays to final states with missing energy at Belle and Belle II

Wednesday, 8 October 2025 10:00 (30 minutes)

Presenter: KOVALENKO, Evgeniy

Session Classification: Session 1

Contribution ID: 31

Type: **not specified**

Final result at the Muon $g-2$ experiment at Fermilab

Wednesday, 8 October 2025 12:00 (30 minutes)

Presenter: BOTTALICO, Elia

Session Classification: Session 2

Contribution ID: 32

Type: **not specified**

UHECRs beyond the GZK limit as Magnetic Monopole candidates

Thursday, 9 October 2025 12:30 (30 minutes)

Presenter: PADGETT (ONLINE), Michael

Session Classification: Session 2

Contribution ID: 33

Type: **not specified**

Coherent Elastic Neutrino-Nucleus Scattering as a Probe of Generalized and Non-Standard Neutrino Interactions at TEXONO

Wednesday, 8 October 2025 12:30 (30 minutes)

Presenter: KARADAĞ, Sevgi

Session Classification: Session 2

Contribution ID: 34

Type: **not specified**

5. Texture zeros in the neutrino mass matrix through a bottom-up approach

Presenter: ARA MAZUMDER (ONLINE), Iffat

Session Classification: Session 3

Contribution ID: 35

Type: **not specified**

6. Probing the Sterile Neutrino Dipole Portal via Low-Energy Electron Recoils at direct detection experiments

Presenter: F MUSTAMIN (ONLINE), Muhammad

Session Classification: Session 3

Contribution ID: 36

Type: **not specified**

Texture zeros in the neutrino mass matrix through a bottom-up approach

Thursday, 9 October 2025 14:40 (20 minutes)

Presenter: ARA MAZUMDER (ONLINE), Iffat

Session Classification: Session 3

Contribution ID: 37

Type: **not specified**

Probing the Sterile Neutrino Dipole Portal via Low-Energy Electron Recoils at direct detection experiments

Thursday, 9 October 2025 15:00 (20 minutes)

Presenter: F MUSTAMIN (ONLINE), Muhammad

Session Classification: Session 3

Contribution ID: **38**

Type: **not specified**

The curvature perturbation of thermal inflation

Thursday, 9 October 2025 09:30 (30 minutes)

Presenter: ZOE, Heeseung

Session Classification: Session 1

Contribution ID: 39

Type: **not specified**

Probing Neutrino Magnetic Moment with Low-Energy Electron Recoil data in Direct Detection Experiments

Thursday, 9 October 2025 10:30 (30 minutes)

Presenter: İBRAHİM SEZER (ONLINE), Halil

Session Classification: Session 1

Contribution ID: 40

Type: **not specified**

The Physics of a Trillion Degrees

Thursday, 9 October 2025 10:00 (30 minutes)

Presenter: HOROWITZ (ONLINE), William

Session Classification: Session 1

Contribution ID: 41

Type: **not specified**

Recent results and perspectives from CMS

Wednesday, 8 October 2025 11:30 (30 minutes)

Presenter: BARTEK, Rachel

Session Classification: Session 2

Contribution ID: 42

Type: **not specified**

Instability problem in Ostrogradsky formalism

Tuesday, 7 October 2025 10:30 (30 minutes)

Presenter: KAMALOV, Timur

Session Classification: Session 1

Contribution ID: 43

Type: **not specified**

Universal Mass Equation for Equal-Quantum Excited States

Thursday, 9 October 2025 12:00 (30 minutes)

Presenter: STRAKOVSKY, Igor

Session Classification: Session 2

Contribution ID: 44

Type: **not specified**

Field source dependence (including electric charge) on its velocity. Different values of the Rydberg constant

Thursday, 9 October 2025 14:00 (20 minutes)

Presenter: LUNIN (ONLINE), Yevhen

Session Classification: Session 3

Contribution ID: 45

Type: **not specified**

Search for black holes and sphalerons using novel machine learning techniques at CMS

Wednesday, 8 October 2025 15:30 (30 minutes)

Presenter: ALMOS VAMI, Tamas

Session Classification: Session 3

Contribution ID: 46

Type: **not specified**

New measurement of $K^+ \rightarrow \pi^+ \nu \bar{\nu}$ branching ratio at the NA62 experiment

Wednesday, 8 October 2025 14:30 (30 minutes)

Presenter: BUCCI, Francesca

Session Classification: Session 3

Contribution ID: 47

Type: **not specified**

Probing Exotic Neutron Decays with HIBEAM-NNBAR

Wednesday, 8 October 2025 15:00 (30 minutes)

Presenter: MEIROSE, Bernhard

Session Classification: Session 3

Contribution ID: 48

Type: **not specified**

di-Higgs as a probe of BSM physics

Tuesday, 7 October 2025 16:00 (30 minutes)

Presenter: MORETTI, Stefano

Session Classification: Session 3

Contribution ID: 49

Type: **not specified**

Optimization of Time Resolution in a THGEM Detector for Muon Detection: A Simulation Approach

Monday, 6 October 2025 16:00 (20 minutes)

Presenter: ABDALLAH IBRAHIM ABDALLAH, Asmaa

Session Classification: Session 3

Contribution ID: 50

Type: **not specified**

Probing Dark Matter via Effective Field Theory: WIMP–Nucleus Scattering Studies

Thursday, 9 October 2025 14:20 (20 minutes)

Presenter: ABID (ONLINE), Attiqullah

Session Classification: Session 3

Contribution ID: 51

Type: **not specified**

Prospects of Higgs Boson Searches Beyond the Standard Model

Wednesday, 8 October 2025 16:00 (30 minutes)

Presenter: SOPCZAK (ONLINE), Andre

Session Classification: Session 3