

The Frontier of Particle Physics: Exploring Muons, Quantum Science and the Cosmos



Report of Contributions

Contribution ID: 1

Type: **not specified**

Opening remark

Monday, June 16, 2025 9:20 AM (10 minutes)

Presenter: KITANO, Ryuichiro (Theory Center, KEK)

Contribution ID: 2

Type: **not specified**

High-Energy Cosmic Neutrinos as Probes of New Physics

Monday, June 16, 2025 9:30 AM (40 minutes)

Presenter: MURASE, Kohta (Pennsylvania State University)

Contribution ID: 3

Type: **not specified**

What's the wave packet size of neutrinos?

Monday, June 16, 2025 10:30 AM (40 minutes)

Presenter: LI, Shirley (UC Irvine)

Contribution ID: 4

Type: **not specified**

J-PARC muon experiments, current and future

Monday, June 16, 2025 11:30 AM (40 minutes)

Presenter: MIBE, Tsutomu

Contribution ID: 5

Type: **not specified**

Theory at Muon Colliders

Monday, June 16, 2025 2:00 PM (40 minutes)

Presenter: CESAROTTI, Cari (MIT)

Contribution ID: 6

Type: **not specified**

Talk

Contribution ID: 7

Type: **not specified**

Short talk

Monday, June 16, 2025 3:00 PM (20 minutes)

Contribution ID: 8

Type: **not specified**

Short talk

Monday, June 16, 2025 3:20 PM (20 minutes)

Contribution ID: 9

Type: **not specified**

Short talk

Monday, June 16, 2025 3:40 PM (20 minutes)

Contribution ID: **10**

Type: **not specified**

Quantum Tops: Quantum Information meets High-Energy Physics

Wednesday, June 18, 2025 9:30 AM (40 minutes)

Presenter: AFIK, Yoav (University of Chicago, Enrico Fermi Institute)

Contribution ID: 11

Type: **not specified**

Light Dark Matter Search with NV Centers: Electron Spin, Nuclear Spin, and Comagnetometry

Tuesday, June 17, 2025 9:30 AM (40 minutes)

Presenter: CHIGUSA, So (MIT)

Contribution ID: 12

Type: **not specified**

Quantum sensing for light dark matter search

Tuesday, June 17, 2025 10:30 AM (40 minutes)

Presenter: ITO, Asuka (Kobe University)

Contribution ID: 13

Type: **not specified**

Consequences of entanglement suppression on light decuplet baryons

Tuesday, June 17, 2025 11:30 AM (40 minutes)

Presenter: HYODO, Tetsuo (Tokyo Metropolitan University)

Contribution ID: 14

Type: **not specified**

Axion Detection Experiments Meet the Majoron

Tuesday, June 17, 2025 2:00 PM (40 minutes)

Presenter: LIANG, Qiuyue (Kavli IPMU)

Contribution ID: 15

Type: **not specified**

Progress of DarQ experiments

Tuesday, June 17, 2025 3:00 PM (40 minutes)

Presenter: NITTA, Tatsumi (University of Tokyo)

Contribution ID: 16

Type: **not specified**

Will we ever detect high frequency gravitational waves?

Wednesday, June 18, 2025 10:30 AM (40 minutes)

Presenter: D'AGNOLO, Raffaele (CEA IPhT Saclay and ENS Paris)

Contribution ID: 17

Type: **not specified**

Short talk

Wednesday, June 18, 2025 11:30 AM (20 minutes)

Contribution ID: **18**

Type: **not specified**

Short talk

Wednesday, June 18, 2025 11:50 AM (20 minutes)

Contribution ID: **19**

Type: **not specified**

Search for Light BSM Particles Using an Undulator

Thursday, June 19, 2025 3:00 PM (40 minutes)

Presenter: YIN, Wen (Tokyo Metropolitan U)

Contribution ID: 20

Type: **not specified**

Sommerfeld effect and unitarity

Thursday, June 19, 2025 9:30 AM (40 minutes)

Presenter: SATO, Ryosuke (Osaka University)

Contribution ID: 21

Type: **not specified**

Nambu Goldstone theorem in cosmology?

Thursday, June 19, 2025 10:30 AM (40 minutes)

Presenter: URAKAWA, Yuko (KEK)

Contribution ID: 22

Type: **not specified**

Quantum computing for stochastic inflation: calculating eigenvalues of differential operators and estimating the decay rate of the perturbation distribution tail

Thursday, June 19, 2025 11:30 AM (40 minutes)

Presenter: MIYAMOTO, Koichi (Osaka University)

Contribution ID: 23

Type: **not specified**

Exploring Physics Beyond the Standard Model via Temperature Observations of Neutron Stars

Thursday, June 19, 2025 2:00 PM (40 minutes)

Presenter: NAGATA, Natsumi (University of Tokyo)

Contribution ID: 24

Type: **not specified**

Transformers for Particle Physics

Friday, June 20, 2025 9:30 AM (40 minutes)

Presenter: NOJIRI, MIHOKO (KEK)

Contribution ID: 25

Type: **not specified**

TBA

Friday, June 20, 2025 10:30 AM (40 minutes)

Presenter: LIM, Sung Hak (Institute for Basic Science)

Contribution ID: 26

Type: **not specified**

TBA

Friday, June 20, 2025 11:30 AM (40 minutes)

Presenter: WENDELL, Roger (Kyoto University)

Contribution ID: 27

Type: **not specified**

Novel neutrino self-interactions

Friday, June 20, 2025 2:00 PM (40 minutes)

Presenter: ZHANG, Yue (Carleton University)

Contribution ID: **28**

Type: **not specified**

Short talk

Friday, June 20, 2025 3:00 PM (20 minutes)

Contribution ID: **29**

Type: **not specified**

Short talk

Friday, June 20, 2025 3:20 PM (20 minutes)

Contribution ID: **30**

Type: **not specified**

Short talk

Friday, June 20, 2025 3:40 PM (20 minutes)

Contribution ID: **31**

Type: **not specified**

Closing

Friday, June 20, 2025 4:00 PM (10 minutes)

Presenter: LOW, Ian (Argonne National Laboratory/Northwestern University)