

**Scientific program:**

**Oct. 3 (Tue) [Chair: M. Nojiri → Eung Jin Chun → Hyun Min Lee]**

14:00-14:30: Xiao-Gang He, “Majorana Phase and Matter Effects in Neutrino Chiral Oscillation.”

14:30-15:00: Hyun Min Lee, “Two tales for the SM Higgs: inflation and dark matter.”

15:00-15:30: Break

15:30-16:00: Qiuyue Liang, “Detecting the Stochastic Gravitational-Wave Background from Modified Gravity with Pulsar Timing Arrays.”

16:00-16:30: Tomasz Dutka, “Bubble-assisted leptogenesis.”

16:30-17:00: Yu Watanabe, “Phenomenology of light thermal dark matter.”

17:00-17:30: Break

17:30-18:00: Masashi AIKO, “Electroweak precision test of axion-like particles.”

18:00-18:30: Eung Jin Chun, “Particle dispersion in the classical vector dark matter background.”

**Oct. 4 (Wed) [Chair: T. Melia → Seong Chan Park (morning) & Jianglai Liu → Shao-Feng Ge → S. Matsumoto (afternoon)]**

09:00-09:30: Seong Youl Choi, “Constructing the covariant vertices systematically.”

09:30-10:00: Suro Kim, “EFT approaches to cosmological collider program,”

10:00-10:30: Break

10:30-11:00: Rodrigo Alonso, “The Cosmology of Higgs EFT.”

11:00-11:30: Dong Woo Kang, “A Geometric Look at pNGB Potentials.”

11:30-12:00: Sungwoo Hong, “Non-invertible Naturalness.”

12:00-13:30: Lunch

13:30-14:00: Seong Chan Park, “Cosmic birefringence and dark photon.”

14:00-14:30: Kim Siang Khaw, “Latest Results from the Fermilab Muon  $g-2$  experiment.”

14:30-15:00: Break

15:00-15:30: Jianglai Liu, “Quest to infinity via dark matter and neutrinos – the underground experimental program at TDLI.”

15:30-16:00: Ning Zhou, “Dark matter searches with PandaX-4T experiment.”

16:00-16:30: Ke HAN, “Neutrino Physics with PandaX.”

16:30-17:00: Break

17:00-17:30: Shao-Feng Ge, “Fermionic Absorption Dark Matter.”

17:30-18:00: Shu-Yu Ho, “Light thermal self-interacting dark matter in the shadow of non-standard cosmology.”

**Oct. 5 (Thu) [Chair: M. Spannowsky → M. Takeuchi]**

09:00-09:30: Valentin Khoze, “Scattering of Fermions on Monopoles.”

09:30-10:00: Kun Liu, “The DarkSHINE experiment R&D status.”

10:00-10:30: Break

10:30-11:00: Michihisa Takeuchi, “CP violating two Higgs doublet models at LHC.”

11:00-11:30: Dan Kondo, “Signal of dark Higgs into muons.”

11:30-12:00: Christoph Englert, “(Non-)Linear BSM Higgs patterns.”

12:00-13:30: Lunch

13:30-18:00: Free discussion

**Oct. 6 (Fri) [Chair S. Shirai → Xiao-Gang He]**

09:00-09:30: Pyungwon Ko, “Massive dark photon and dark Higgs.”

09:30-10:00: Masahito Yamazaki, “Veto algorithms for quantum parton showers.”

10:00-10:30: Break

10:30-12:00: Ahmed Hammad, “Sharpening the CP-odd scalar signature at the LHC through contrastive learning.”

11:00-11:30: Myeonghun Park, TBA

11:30-12:00: Michael Spannowsky, “Quantum Machine Learning for High Energy Physics.”