

IBS CTPU-CGA 2024 Summer School and Workshop for Particle Physics and Cosmology in Korea

Monday, 22 July 2024

Presentations (16:10 - 18:00)

-Conveners: Donghui Jeong

time	[id] title	presenter
16:10	[9] Development of a 12-20 GHz CO Intensity Mapping Receiver for Capturing the Star-formation History in the Early Universe	Prof. KIM, Junhan
16:45	[10] WimPyDD: an object-oriented Python code for the calculation of WIMP direct detection signals	Mr JEONG, Injun
17:10	[11] Local Universe with Cosmicflows-4	Dr DUPUY, Alexandra
17:35	[12] Quintom cosmology and modified gravity after DESI 2024	Dr REN, Xin

Tuesday, 23 July 2024

Presentations (10:00 - 12:00)

-Conveners: Wanil Park

time	[id] title	presenter
10:00	[17] One-point correlators of conserved and non-conserved charges in QCD	Prof. SON, Minho
10:35	[18] Axion-Mediated Dark Matter	Prof. BAE, Kyu Jung
11:10	[20] Axion Dark Matter from Cosmic String Network	Mr KIM, Heejoo
11:35	[19] Flavor Leptogenesis during the reheating era	Dr DATTA, Arghyajit

Presentations (14:00 - 15:50)

-Conveners: Kenji Kadota

time	[id] title	presenter
14:00	[21] Prefactor of quantum tunneling rate in curved spacetime	Prof. YAMAGUCHI, Masahide
14:35	[32] Gravitational Wave Sourced by Decay of Massive Particle from Primordial Black Hole evaporation	Dr MAHAPTRA, Satyabrata
15:00	[33] Gravitational waves induced by scalar-tensor mixing	Dr BARI, Pritha

Presentations (16:10 - 18:00)

-Conveners: Kyu Jung Bae

time	[id] title	presenter
16:10	[30] Freeze-in Inelastic Dirac Dark Matter and H_0 tension	Mr CHO, Wonsub
16:35	[31] Constraints on Inelastic Dark Matter imposed by Capture in White Dwarves and Left-Right gauge symmetry	Ms KIM, Hyomin
17:00	[41] The imprint of dark matter spike on the merger rate history of primordial black hole binaries	Dr DING, Qianhang

Wednesday, 24 July 2024

Presentations (10:00 - 12:00)

-Conveners: **Minho Son**

time	[id] title	presenter
10:00	[23] Unexpected possible connection between cosmology and particle physics	Prof. KIM, Hyung Do
10:35	[24] The MCSM (the minimal cosmological standard model)	Prof. PARK, Wanil
11:10	[34] The stochastic formalism in the presence of a curvaton	Mr KURODA, Tomotaka
11:35	[40] Prospects of constraining WIMP using black hole low-mass X-ray binaries	Dr ARPAN, Kar

Thursday, 25 July 2024

Presentations (10:00 - 12:00)

-Conveners: Ki Young Choi

time	[id] title	presenter
10:00	[25] Physics of SND@LHC / SHiP Experiments	Prof. LEE, Kang Young
10:35	[26] Scalar-induced one-loop tensor power spectrum during inflation	Prof. GONG, Jinn-Ouk
11:10	[35] Decoherence of Primordial Perturbations in Geodesic Observer's View	Mr SANO, Fumiya
11:35	[39] The Strong Coupling Issue of $f(T)$ Gravity and Beyond	Dr HU, Yu-Min

Presentations (14:00 - 15:50)

-Conveners: Takeshi Kobayashi

time	[id] title	presenter
14:00	[27] nEPT power spectrum and bispectrum	Prof. JEONG, Donghui
14:35	[37] Sphericity of peaks with non-Gaussianity	Ms UWABO, Michiru
15:00	[38] Wave nature of gravitational wave lensing and its applications	Dr CHOI, Hangil
15:25	[45] Testing Gravity Theories: Black Hole Quasinormal Modes and their Higher Overtones	Ms ZHANG, Jiale

Presentations (16:10 - 17:35)

-Conveners: Jinn-Ouk Gong

time	[id] title	presenter
16:10	[28] The Radio Telescope Probes on Dark Matter Beyond WIMP	Prof. KADOTA, Kenji
16:45	[42] Photon region and shadow of a rotating 5D black string	Dr TANG, Zi-Yu
17:10	[43] Primordial Black Hole Formation from Power Spectrum with Finite-width	Ms WANG, Jianing

Friday, 26 July 2024

Presentations (10:00 - 11:25)

-Conveners: **Hyung Do Kim**

time	[id] title	presenter
10:00	[13] Dark Z model and Higgs Phenomenology	Prof. JUNG, Dong-Won
10:35	[14] How much is the lifetime of an oscillon affected by coupling to another field?	Ms LI, Siyao
11:00	[15] Cosmological correlators: more is difficult	Dr ZHU, Yuhang