Program (Plenary Talks)

Saturday Morning, June 15th, 2024

Chair：Weiping Li

8:30-9:00	**Opening Ceremony**	
9:00-9:20	**Photo**	

Chair：Sang Pyo Kim

9:20-9:50	Jun'ichi Yokoyama	Loop corrections to non-standard inflation
9:50-10:20	Di Li	Revealing the Dynamic Universe
10:20-10:50	Filipe Abdalla	The BINGO project
10:50-11:10	**Coffee Break**	

Chair：Ronggen Cai

11:10-11:40	Xiao-Gang He	Flavorful Dark Matter
11:40-12:10	Raymond Volkas	Explaining the cosmological dark matter coincidence in asymmetric dark QCD
12:10-12:40	Ming-chung Chu	Resolving the Hubble and S8 tensions with neutrino mass and chemical potential
12:40-14:00	**Lunch**	

Sunday Morning, June 16th, 2024

Chair: Jun'ichi Yokoyama

8:30-9:00	Kazunori Kohri	TBD
9:00-9:30	Kei-ichi Maeda	Dynamics of Binary System around Supermassive Black Hole and Gravitational Waves
9:30-10:00	Bum-Hoon Lee	Dilatonic Einstein Gauss-Bonnet Cosmology - DM and GW
10:00-10:20	**Coffee Break**	

Chair：Raymond Volkas

10:20-10:50	Masahide Yamaguchi	Trace anomaly in metric affine gravity
10:50-11:20	Bin Chen	A new analytical model of magnetofluids surrounding rotating black holes
11:20-11:50	Nobuyoshi Ohta	Quantum Improved Kerr Black Holes and Thermodynamics
11:50-12:20	Hyeong-Chan Kim	Heat conduction in relativistic thermodynamics based on action formulation
12:20-14:00	**Lunch**	

Monday Afternoon, June 17th, 2024

Chair：Xiaogang He

14:00-14:30	Zigao Dai	Electromagnetic counterparts to gravitational wave events
14:30-15:00	Joel Francisco Saavedra Alvear	P-V phase transitions: Einstein gravity and holographic dark energy
15:00-15:30	Di-Lun Yang	Chiral transport phenomena in core-collapse supernovae
15:30-15:50	**Coffee Break**	

Chair：Boqiang Ma

15:50-16:20	Hyung Mok Lee	Multi-messenger Astronomy, Dark Sirens and Cosmology
16:20-16:50	Chang Feng	Multiwavelength studies of the early Universe

16:50-17:20	Ramón Alejandro Herrera Apablaza	The inflationary Universe	
17:20-17:50	Jianmin Wang	Precise cosmic ladders over the large distances of the Universe	
17:50-18:20	**Closing Ceremony (Best Presentation award Ceremony) Ronggen Cai, Bin Wang, Yungui Gong**		
18:20	**Dinner**		

Program（PS1）Particle Physics and Gravitation

Saturday Afternoon, June 15th, 2024

Chair: Ming-Chung Chu

14:00-14:20	Yi Yang	Stringy Scaling Behavior in High Energy Limits	Invited
14:20-14:40	Jia-Rui Sun	Hyperfine structure of Rényi entropy and its gravity dual	
14:40-15:00	Morgan Le Delliou	Gauge theory approach to Teleparallel Gravities	
15:00-15:20	Desheng LI	Representation of fermions in Pati-Salam model	
15:20-15:40	Akihiro Ishibashi	Semiclassical Einstein equations from holography and boundary dynamics	Invited
15:40-16:00	**Coffee Break**		

Chair: Chiang-Mei Chen

16:00-16:20	Yuxiao Liu	Polarization modes of gravitational waves in general modified gravity	Invited
16:20-16:40	Zhenbin Yang	TBD	Invited
16:40-17:00	Jing Ren	Limits on High-Frequency Gravitational Waves in Planetary Magnetospheres	
17:00-17:20	Yan-Heng Yu	Silk damping in scalar-induced gravitational waves	
17:20-17:40	Yong Tang	Probing Dark Matter with Gravitational-Wave Detectors in Space	
17:40-18:00	Shaojiang Wang	Systematic determinations of gravitational waves from cosmological first-order phase transitions	Invited
18:20	**Banquet**		

Sunday Afternoon, June 16th, 2024

Chair: Masahide Yamaguchi

14:00-14:20	Takaaki Ishii	Charge convexity and hairy black holes in AdS	Invited
14:20-14:40	Chunbo Lin	Constraining the modified friction in gravitational wave propagation with precessing black hole binaries	
14:40-15:00	Chao-Jun Feng	Some possible observable effects of gravity	
15:00-15:20	Chao Zhang	Gravitational perturbation with its applications to quasi-normal mode and Lagrangian analysis	
15:20-15:40	Haryanto Siahaan	Aspects of Magnetized Black Holes: Progress and Future	Invited
15:40-16:00	Chan Park	A Novel Gravitational Wave Detection Method Using SKA-Low Antennas	PostDoc
16:00-16:15	**Coffee Break**		

Chair：Yen Chin Ong

16:15-16:30	Chao Zhang (SJTU)	Probing new fundamental fields with Extreme mass ratio inspirals	PostDoc

16:30-16:45	Junsup Shim	Probing vectorial parity violation in the early Universe	PostDoc
16:45-17:00	Jia-Jun Wu	W-boson Mass Anomaly from SU(2) L Scalar Multiplets	PostDoc
17:00-17:15	Wei-Xiang Feng	Gravothermal Phase Transition, Black Holes and Space Dimensionality	PostDoc
17:15-17:30	Tan Chen	Quasinormal modes of gravitational perturbation for uniformly accelerated black holes	Student
17:30-17:45	Yeheng Tong	General teleparallel gravity from Finsler geometry	Student
17:45-18:00	Chenhao Hao	Emergence of Negative Mass in General Relativity	Student
18:00-18:15	Liu Lei	Slowly rotating black hole in chiral scalar-tensor theory	Student
18:15	**Dinner**		

Monday Morning, June 17th, 2024

Chair: Nobuyoshi Ohta

8:30-8:50	Liming Cao	Strong cosmic censorship and the appearance of black holes	Invited
8:50-9:10	Wen-Di Guo	Gravito-Electromagnetic coupled perturbations and QNMs of a charged black hole with scalar hair	
9:10-9:30	Yuxuan Peng	Exploring nontrivial black hole horizons	
9:30-9:50	Xiao Yan Chew	Traversable Wormholes in General Relativity and Beyond	
9:50-10:10	Bogeun Gwak	Perturbations on Higher-Dimensional Black Holes by External Matters	Invited
10:10-10:30	Coffee Break		

Chair：Liming Cao

10:30-10:50	Chiang-Mei Chen	Catastrophic Emission of Charges from Near-Extremal Nariai Black Holes	Invited
10:50-11:10	Adnan Malik	A comprehensive discussion for the identification of cracking points in f(R) theories of gravity	
11:10-11:30	Yang An	Emitting a Massive Baby Universe in JT gravity	
11:30-11:50	Adnan Malik	A comprehensive discussion for the identification of cracking points in f(R) theories of gravity	
11:50-12:10	Wencong Gan	Nonexistence of quantum black and white hole horizons in an improved dynamic approach	
12:10-12:30	Keun-Young Kim	Deep learning bulk spacetime from boundary quantum data	Invited
12:30-14:00	**Lunch**		

Program（PS2）Astrophysics and Cosmology

Saturday Afternoon, June 15th, 2024

Chair: Stefano Scopel

14:00-14:20	Defu Hou	QCD matter under extreme conditions	Invited
14:20-14:40	Xiao-Dong Li	Preparing for Stage-IV Surveys: Cosmology from Galaxy Clustering Analysis	
14:40-15:00	Paulo Montero-Camacho	Cosmological insights from cosmic reionization	
15:00-15:20	Lei Wu	Sub-GeV Dark Matter and Low Energy Ionization Signals	Invited

15:20-15:40	Jianhua He	Testing theories of dark energy with laboratory experiments	Invited
15:40-16:00	**Coffee Break**		

Chair: Jianhua He

16:00-16:20	Otto Akseli Hannuksela	Gravitational lensing of gravitational waves	Invited
16:20-16:40	Bin Hu	Interference based GW Lensing search	Invited
16:40-17:00	Toshiya Namikawa	New probe of inflationary gravitational waves: cross-correlations of lensed primary CMB B-modes with large-scale structure	Invited
17:00-17:20	Chengjiang Yin	Enhanced detectability of gravitationally lensed gravitational waves by spinless black holes with aLIGO	
17:20-17:40	Atsuhisa Ota	Radiation exchange in primordial gravitational waves	
17:40-18:00	Zhiqi Huang	Measuring Primordial Gravitational Waves with CMB	
18:20	**Banquet**		

Sunday Afternoon, June 16th, 2024

Chair: Hyung Mok Lee

14:00-14:20	Lijing Shao	Fundamental Physics with Pulsars around Sgr A*	Invited
14:20-14:40	Yun-Long Zhang	Angular correlation and deformed Hellings-Downs curve by spin-2 ultralight dark matter	Invited
14:40-15:00	Zu-Cheng Chen	Constrain modified gravities with pulsar timing arrays	Invited
15:00-15:20	Jiaying Xu	Blinkverse: A Database of Fast Radio Bursts	
15:20-15:40	Yuan-Pei Yang	Compact Persistent Radio Sources of Repeating Fast Radio Bursts	
15:40-16:00	Manuel Gonzalez-Espinoza	Dynamics of dark energy in a scalar-vector-torsion theory	
16:00-16:20	**Coffee Break**		

Chair: Lijing Shao

16:20-16:35	Dong-Gang Wang	The Cosmological Bootstrap: Theory and Observations	PostDoc
16:35-16:50	Qianhang Ding	The merger rate of primordial black hole binaries as a probe of Hubble parameter	PostDoc
16:50-17:05	Lu Yin	Larger H0 values in the CMB dipole direction	PostDoc
17:05-17:20	Jinsu Kim	Gravitational wave signatures of Gauss-Bonnet-corrected inflation	PostDoc
17:20-17:35	Diego Cruces	Towards a non-perturbative description of inflation	PostDoc
17:35-17:50	Weiyu Hu	Gravitational waves from preheating in inflation with Weyl	Student
17:50-18:05	Xinpeng Wang	Enhanced Curvature Perturbation and Primordial Black Hole Formation in Two-stage Inflation with a break	student
18:05-18:20	Zi-Yan Yuwen	Bubble kicks for primordial black holes to form more binaries	student
18:20	**Dinner**		

Monday Morning, June 17th, 2024

Chair: Masahide Yamaguchi

8:30-8:50	Xiaojun Bi	Implications of very high energy GRB observation at LHAASO	Invited
8:50-9:10	Kenji Kadota	Multi-messenger probes on dark matter surrounding black holes	Invited
9:10-9:30	Kilar Zhang	Gravitational Waves, Compact Stars and String Dualities	
9:30-9:50	Bowen Fu	Gravitational wave from topological defects	

9:50-10:10	Gang Wang	Enhancing data analysis for space-borne GW observations with robust time-delay interferometry	Invited
10:10-10:30	**Coffee Break**		
Chair: Xiaojun Bi			
10:30-10:50	Tao Yang	The early warning and localization of GWs from higher modes induced by eccentricity	Invited
10:50-11:10	Anna Tokareva	Gravitational waves from inflaton decay: effective field theory approach	
11:10-11:30	Chi Tian	Astrophysical or Cosmological? Implications From Anisotropies in the Gravitational Wave Background	
11:30-11:50	Jun-Peng Li	The Imprints of Primordial Non-Gaussianity on Scalar-Induced Gravitational Waves	
11:50-12:10	Alexey Koshelev	Cosmology in non-perturbative quantum gravity: theory and observations	
12:10-12:30	Stefano Scopel	Searching for WIMPs with celestial bodies	Invited
12:30-14:00	**Lunch**		

Program（PS3）Dark matter and Neutrino Physics

Saturday Afternoon, June 15th, 2024

Chair: Ming-Chung Chu

14:00-14:20	Suerfu Burkhant	The SABRE South Experiment at the Stawell Underground Physics Laboratory	Invited
14:20-14:40	Satoshi Shirai	Higgsino Dark Matter: Challenges and Prospects in Detection	Invited
14:40-15:00	Ran Ding	Illuminating M87* inner shadow with dark matter annihilation	
15:00-15:20	Hongchao Zhang	Cosmological constant, inflaton, and dark matter all naturally originated from Poincare gauge gravity	
15:20-15:40	Aobo Li	Unleash the Full Power of Xenon-based Neutrinoless Double-Beta Decay Search Using Machine Learning	Invited
15:40-16:00	**Coffee Break**		
Chair: Lei Wu			
16:00-16:20	Qiang Yuan	Constraining dark matter properties with stellar kinematics	Invited
16:20-16:40	Bohua Li	Testing ultralight scalar field dark matter in high-redshift universe	
16:40-17:00	Wan-Zhe Feng	Freeze-in Dark Matter Explanation of the Galactic 511 keV	
17:00-17:20	Fa Peng Huang	Gravitational wave signals of dark matter	
17:20-17:40	Weiwei Xu	Dark Matter Searches in AMS experiment	Invited
17:40-18:00	Dongqing Huang	Status of The LZ dark matter experiment	Invited
18:20	**Banquet**		

Sunday Afternoon, June 16th, 2024

Chair: Bin Hu

14:00-14:20	Shao-Feng (韶锋) Ge (葛)	Neutrino Mass Measurement with Cosmic Gravitational Focusing	Invited
14:20-14:40	Jun Guo	TRopIcal DEep-sea Neutrino Telescope – TRIDENT	Invited

14:40-15:00	Qing Lin	Recent Results and Progress of PandaX-4T Experiment (PandaX-	Invited
15:00-15:20	Ruhui Li	The Status and Prospects of JUNO	Invited(博士后)
15:20-15:40	SeungMok Lee	Annual Modulation Signal of Dark Matter in COSINE-100 Full Dataset and Future Prospects	Invitedstudent
15:40-16:00	**Coffee Break**		
Chair: Di-Lun Yang			
16:00-16:15	Jing Liu	The stimulated radiation of gravitational waves from the clouds of ultralight bosons	PostDoc
16:15-16:30	Man Hei Leung	Vortex formation and gravitational lensing significance of self-interacting ultralight dark matter(ULDM): in rotating galactic halo	student
16:30-16:45	Chun Ming Yip	Measuring the Low-Energy Weak Mixing Angle with Supernova Neutrinos	student
16:45-17:00	Zhonghai Liu	Slowly rotating supercompact stars	student
17:00-17:15	xiangxi zeng	Multiple peaks in the SIGW with NG	Student
17:15-17:30	Wencong Hong	Merger rate of PBH binaries inside DM halo	student
17:30-17:45	Jianhao WU	Halo scenario or Local scenario? Give suggestion to North Polar Spur debate by cosmic-ray and magnetic field	student
17:45-18:00	Ziwen Yin	Axion star condensation around primordial black holes and microlensing limits	student
18:00-18:20	Tianyao Fang/Jianqiao Deng	The emergence of Einstein gravity and ultralight dark matter candidate from topological supergravity in 3 + 1D.	student
18:20	**Dinner**		

Monday Morning, June 17th, 2024

Chair: Raymond Volkas			
8:30-8:50	Qian Yue	TBD	Invited
8:50-9:10	Peter Cox	TBD	Invited
9:10-9:30	Kwan Chuen Chan	Photometric BAO measurements	
9:30-9:50	Saqib Hussain	High-energy cosmic messenger emission from Perseus cluster	
9:50-10:10	Fei Gao	TBD	Invited
10:10-10:30	**Coffee Break**		
Chair: Qian Yue			
10:30-10:50	Ziqing Hong	Dark Matter search with the SuperCDMS Experiment	Invited
10:50-11:10	Christina Gao	Dark Matter Searches on a Photonic Chip	
11:10-11:30	Mingxuan Xue	CJPL-CUPID bolometer technology for Mo-100 neutrinoless double beta decay search	
11:30-11:50	Yiming Zhong	Robustness of the Galactic Center Excess Morphology Against Masking	
11:50-12:10	Yi Wang	DarkSide: a direct dark matter search project using liquid argon	Invited
12:10-12:30	Mengjiao Xiao	In search of cosmic-ray antinuclei from dark matter with the GAPS experiment	Invited

12:30-14:00 **Lunch**

Program（PS4）Gravity and Cosmology

Saturday Afternoon, June 15th, 2024

Chair: Hyeong-Chan Kim

14:00-14:20	Yen Chin Ong	Barrow Entropy: A Case Study of the Subtleties Between Generalized Entropy and Modified Gravity	Invited
14:20-14:40	Ahmad Sheykhi	Modified cosmology through Barrow entropy	
14:40-15:00	Haximjan Abdusattar	Insight into the Micro-Structure of FRW Universe from a P-V Phase Transition	
15:00-15:20	Zhen-Ming Xu	The phase transition picture of the AdS black hole	
15:20-15:40	Shao-Wen Wei	Topology of black hole thermodynamics	Invited
15:40-16:00	**Coffee Break**		

Chair: Shao-wen Wei

16:00-16:20	Cheng-Yong Zhang	Nonlinear self-interaction induced black hole bomb	Invited
16:20-16:40	Dingfang Zeng	Black Holes Inside, Singularity or Complementarity	
16:40-17:00	Jun Nian	The Quantum Perspectives of Kerr Black Hole Formation and Evaporation	
17:00-17:20	Xiangdong Zhang	Effective four-dimensional loop quantum black hole with a cosmological constant	
17:20-17:40	Ling-Long Gao	Black hole interiors: from horizon to singularity	
17:40-18:00	Xiao-Mei Kuang	Image of a hairy black hole	Invited
18:20	**Banquet**		

Sunday Afternoon, June 16th, 2024

Chair: Keiichi Maeda

14:00-14:20	Jieci Wang	Quantum sensing in curved spacetime	Invited
14:20-14:40	Qingdi Wang	Averting the Vacuum Catastrophe	
14:40-15:00	Chen Zhang	On the cosmological abundance of magnetic monopoles	
15:00-15:20	Zihao Wu	Application of algebraic geometry methods in multi-loop Feynman integral computation	
15:20-15:35	Yuhang Zhu	BCS in the Sky: Signatures of Inflationary Fermion Condensation	PostDoc
15:35-15:50	Gui-Rong Liang	Graviton-photon conversion in atomic electric field and high frequency gravitational wave detections	PostDoc
15:50-16:05	Jiale ZHANG	Parametrized Black Hole Quasinormal Ringdown Formalism for Higher Overtones	student
16:05-16:20	**Coffee Break**		

Chair: Jieci Wang

16:20-16:35	Ao Wang	Revisiting the Ultraviolet Tail of the Primordial Gravitational	student
16:35-16:50	Wen-Bin Liu	Quantum field theories at null infinity	student
16:50-17:05	Yuefeng Di	First-Order Phase Transition in a Hypermagnetic Field	student

17:05-17:20	Siyao Li	How much is the lifetime of an oscillon affected by coupling to another field?	student
17:20-17:35	Yuping An	Interface Dynamics of Strongly interacting Binary Superfluids	student
17:35-17:50	Hanyu Cheng	Future targets for light gauge bosons from cosmic strings	student
17:50-18:05	Ling Cheung	Torsional oscillations of magnetized neutron stars: Impacts of Landau-Rabi quantization of electron motion	student
17:05-18:20	Tian-Xiang Ma	Frozen Boson stars in an infinite tower of higher-derivative	student
18:20	**Dinner**		

Monday Morning, June 17th, 2024

Chair: Chang Feng

8:30-8:50	Song He	Holographic QCD phase diagram and induced gravitational wave	Invited
8:50-9:10	Zheng-Quan Cui	Cone holography with Neumann boundary conditions	
9:10-9:30	Jie-qiang Wu	Revisiting the asymptotic symmetries and their associated charges in the pure AdS3 gravity	
9:30-9:50	Jin Wang	Quantum correlations between particles in accelerations and curved space times	Invited
9:50-10:10	Wu-zhong Guo	Sum rule for pseudo entropy and timelike entanglement entropy	Invited
10:10-10:30	**Coffee Break**		

Chair: Song He

10:30-10:50	Peng Liu	Diagnosing Emergent Isotropy in Anisotropic Holographic Systems using Quantum Information measures	Invited
10:50-11:10	Cheng-Jun Xia	Ultra-low-mass and small-radius white dwarfs made of heavy elements and quark nuggets	
11:10-11:30	Yu-Peng Zhang	Properties of geodesics in the backgrounds of dynamical	
11:30-11:50	Hongming Zhu	Observability of a Helical Parity-Violating Universe	
11:50-12:10	Zahra Davari	Viscous Dark Matter as a Solution to the S_8 Tension in Cosmology	
12:10-12:30	Rong-Jia Yang	Possible evidences from H(z) parameter data for physics beyond LCDM	
12:30-14:00	**Lunch**		