



XVI International Conference on Gravitation,
Astrophysics and Cosmology
第十六届国际引力、天体物理和宇宙学会议

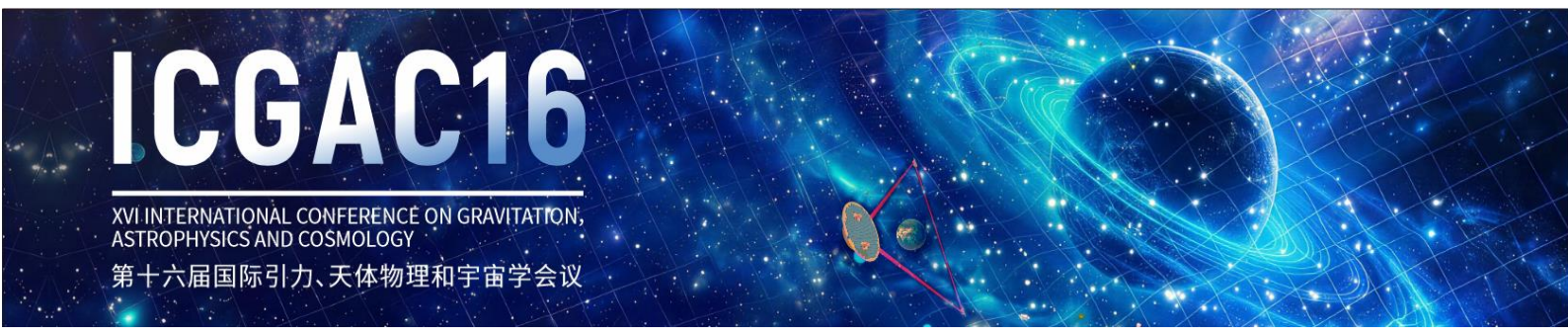
PROGRAM BOOK
会议手册

SYSU Academic Vila, Shenzhen, China
Aug 10 - 14, 2026

ICGAC16

XVI INTERNATIONAL CONFERENCE ON GRAVITATION,
ASTROPHYSICS AND COSMOLOGY

第十六届国际引力、天体物理和宇宙学会议



1. Overview

ICGAC16 is the series of triennial conferences on Gravitation, Astrophysics and Cosmology which take place in the Asia-Pacific region, with the goals to promote cooperation among the member countries and within an international context, high level studies on hot topics and to encourage young physicists on these fields. This conference has been one of the key programs sponsored by APCTP over the past twenty years. It has been hosted by AP regions: Seoul, Korea (1993); Hsinchu, Taiwan, China (1995); Tokyo, Japan (1997); Beijing, China (1999); Moscow, Russia (2001); Seoul, Korea (2003); Jhongli, Taiwan, China (2005); Nara, Japan (2007); Wuhan, China (2009); Qui-Nhon, Vietnam (2011); Almaty, Kazakhstan (2013); Moscow, Russia (2015), Seoul, Korea (2017); Taiwan, China (2020) and Gyeongju, Korea (2023). After ICGAC15, Korea (2023), it will be held at Shenzhen, China in August 10-14, 2026, as a sequence of MG, GRG and ICGAC for every three years.

The topics of ICGAC16 include

1. Classical Gravity, GR Extensions
2. Classical and Quantum Cosmology
3. Dark Matter and Dark Energy
4. Black Holes, Wormholes
5. Strings, Branes, Higher Spin Fields and Quantum Gravity
6. Extra Dimensions and Variation of Constants
7. Experimental Studies of Gravity and Fundamental Physics
8. Gravitational Waves
9. Multi Messenger Astronomy
10. Numerical Relativity
11. Relativistic Astrophysics
12. White Dwarfs, Neutron Stars and Gamma Ray Bursts
13. Applied relativity

International Standing Committee(ISC)

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 Xinmin Zhang, Institute of High Energy Physics, CAS
 Zebing Zhou, Huazhong University of Science and Technology
 Jianwei Mei, Sun Yat-sen University

2. Useful Information

2.1 Registration:

Registration time: a) August 9, 14:00-21:00

b) August 10~14, 8:30-9:30

Registration venue: the lobby of SYSU Academic Vila

2.2 Conference Venue

SYSU Academic Vila, Sun Yat-sen University Shenzhen Campus, No.66 Gongchang Road, Guangming District, Shenzhen 518055, China

	Plenary Session	Parallel Session
August 10	Sun Yat-sen Hall (1st floor)	Meeting room 1, 2, 3, 4, 5 (2nd floor)
August 11	Sun Yat-sen Hall (1st floor)	Meeting room 1, 2, 3, 4, 5 (2nd floor)
August 12	Sun Yat-sen Hall (1st floor)	/
August 13	Sun Yat-sen Hall (1st floor)	Meeting room 4, 5 (2nd floor)
August 14	Sun Yat-sen Hall (1st floor)	/

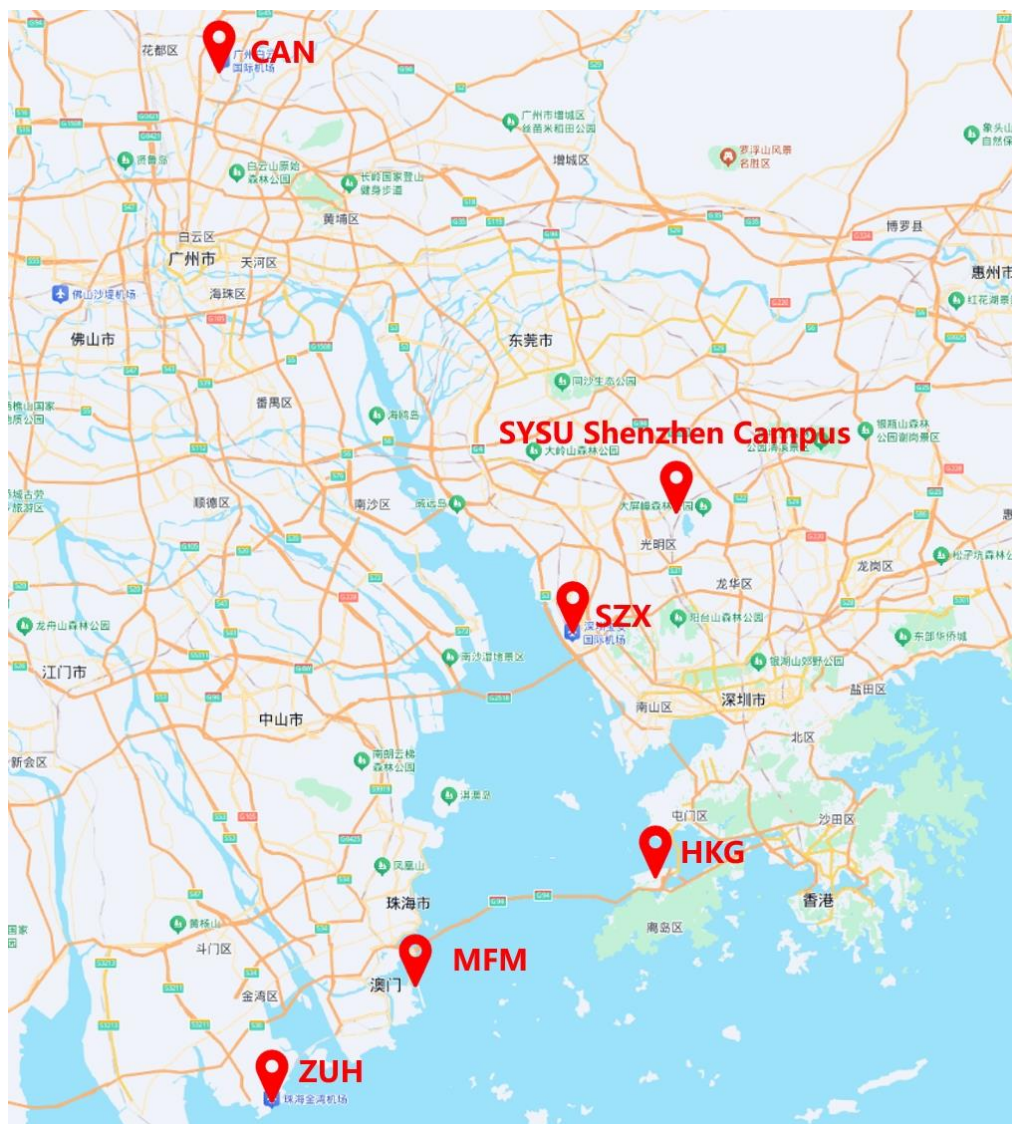
2.3 Wi-Fi:

Wi-Fi Name (SSID): SYSU-AVSC

Password: 12345678

2.4 Lunch & dinner:

- Dinner on August 11 will be provided by the conference in the Vila.
- Participants are responsible for their own meals at other times. A map of dining venues will be provided at the registration.
- Buffet reservations should be made at the registration desk one day in advance.
- Payment can be made at the restaurant before dining.



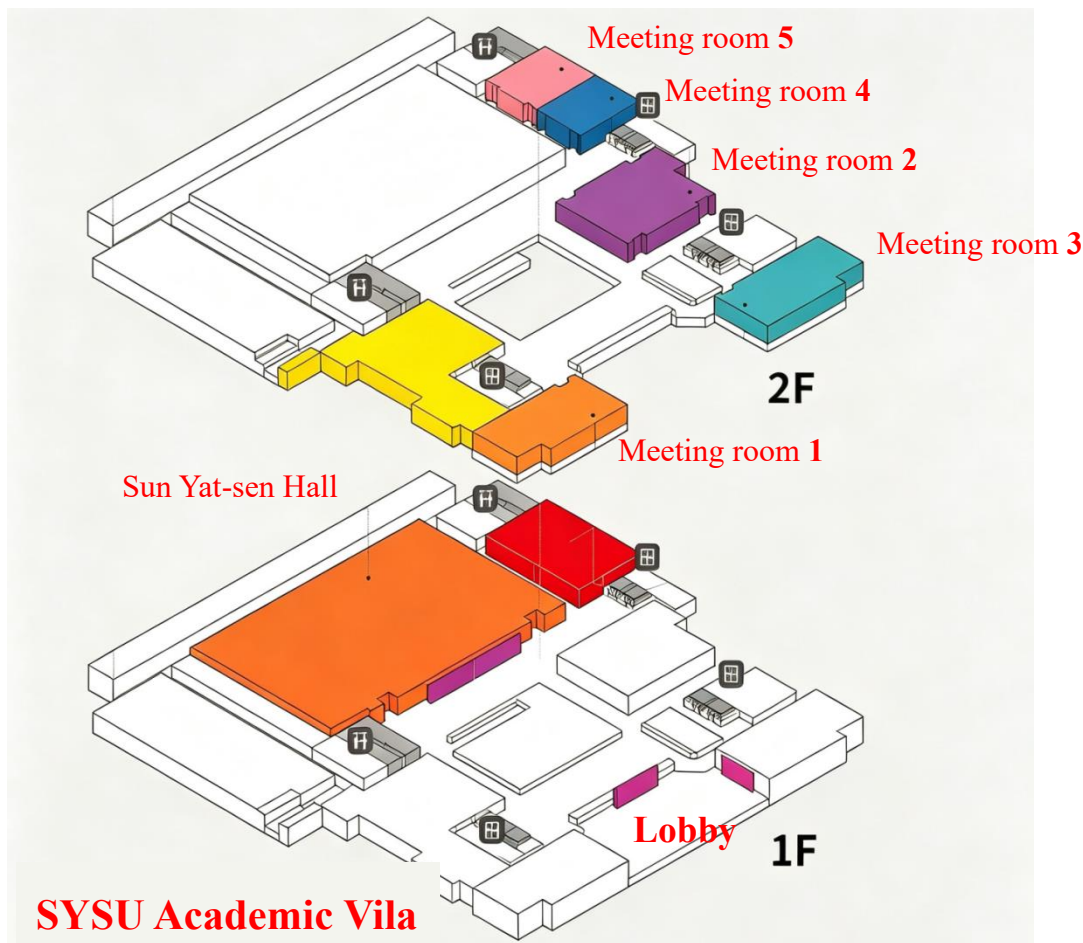
SYSU Shenzhen Campus and Nearby Airports



SYSU Shenzhen Campus Map



SYSU Academic Vila



Meeting Room

3. Program

Program at a glance

Date Time	August 9 (Sun)	August 10 (Mon)	August 11 (Tue)	August 12 (Wed)	August 13 (Thu)	August 14 (Fri)
0845-0900		Opening Photo				
0900-0945		Pl	Pl	Pl	Pl	Pl
0945-1030		Pl	Pl	Pl	Pl	Pl
1030-1100		Coffee Break				
1100-1145		Pl	Pl	Pl	Pl	Pl
1145-1230		Pl	Pl	Pl	Pl	Pl
1230-1245		Lunch	Lunch	Lunch	Lunch	Closing
1245-1400						
1400-1600	Registration	Pa	Pa	Free Discussion	Pa	
1600-1630		Coffee Break			Coffee Break	
1630-1830		Pa	Pa		Pa	
1900-2100			Banquet	ISC Meeting		

Plenary Sessions

Plenary Sessions Sun Yat-sen Hall

August 10 (Monday) 08:45-12:30

Chair: Jianwei Mei

Opening & Group Photo 08:45-09:00

Ronggen Cai Periodic Gravitational Lensing with Oscillating Boson Stars 09:00-09:45

Ho Jung Paik Instrumenting the Moon as a Gravitational Wave Detector 09:45-10:30

Coffee Break

Chair:Chiang-Mei Chen

Shinji Mukohyama Emergent time and big-bang 11:00-11:45

Sergey Sushkov Cosmology in the theory of gravity with non-minimal derivative coupling 11:45-12:30

August 11 (Tuesday) 09:00-12:30

Chair: SungWon Kim

Xinmin Zhang Recent Progress on Dark Energy Study 09:00-09:45

Yuko Urakawa Searching for Axion Dark Matter with Radio Observations 09:45-10:30

Chair: Filipe Abdalla

Sungwon Kim Gravitational Waves and Radiation by Wormhole System 11:00-11:45

Konstantin Postnov Accretion effects in merging rates of primordial binary black holes 11:45-12:30

August 12 (Wednesday) 09:00-12:30

Chair: Sergey Sushkov

Jianwei Mei TianQin: a mission to detect gravitational waves in space 09:00-09:45

Tomonori Totani The 20 GeV Fermi halo: evidence for dark matter annihilation? 09:45-10:30

Chair: PengMing Zhang

Yongmin Cho	Cosmological Implications of Electroweak Monopoles	11:00-11:45
James Pinfold	The Search for Magnetic Monopoles from the TeV to the GUT Scale using Collider and Astroparticle Detectors	11:45-12:30

August 13 (Thursday) 09:00-12:30

Chair: Medeu Abishev

Yueliang Wu	Advances in the Taiji Program for Gravitational-Wave Detection	09:00-09:45
Kejia Lee	Recent progress of CPTA observation --- low frequency observation to improve DM noise	09:45-10:30

Chair: Konstantin Postnov

Chiangmei Chen	Quantum Improved Black Holes in Asymptotically Safe Gravity	11:00-11:45
Myungshin Im	7-Dimensional Telescope for Multimessenger Astronomy	11:45-12:30

August 14 (Friday) 09:00-12:30

Chair: Yu-Xiao Liu

Hu Zhan	An Overview of the Chinese Space Station Survey Telescope	09:00-09:45
Filipe Abdalla	21-cm Cosmology: Radio BAO and Cosmological Tensions	09:45-10:30

Chair: Shinji Mukohyama

Takafumi Ushiba	Overview of Large-scale Cryogenic Gravitational wave Telescope KAGRA	11:00-11:45
Li Li	Black Hole Interiors: Critical Phenomena, Kasner Dynamics, and Beyond	11:45-12:30

Parallel Sessions

Parallel Session Mon-1 (A1)

Speaker	Title	Date	Time
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(Mon-1a, Meeting Room 1)

Chair: Yu Tian

A1. General relativity: Theory and Mathematical developments

Wonwoo Lee	Chaotic Particle Behavior in an Anisotropic Fluid Black Hole Immersed in a Magnetic Field	Aug 10	14:00-14:20
Petr Kotlarik	Black Holes Distorted by Their Environment: Stationary and Axisymmetric Perturbations	Aug 10	14:20-14:40
Yuan-Ceng Xu	Black hole interiors and complexity in holographic solids	Aug 10	14:40-15:00
Liang-Bi Wu	Virtual absorption modes of Schwarzschild-de Sitter spacetimes in semi-open systems	Aug 10	15:00-15:20
Nathan Thomas Carruth	Trapped surface formation: physical foundations	Aug 10	15:20-15:40
Tao Zhu	Tests of Lorentz and parity symmetry of gravity with gravitational waves	Aug 10	15:40-16:00

(Mon-1b, Meeting Room 1)

Chair: Wonwoo Lee

A1. General relativity: Theory and Mathematical developments

Weihu Ma	Spacetime discreteness and $PSL(2, \mathbb{R})$ phases at the Planck scale	Aug 10	16:30-16:50
Peng Zhao	The characteristic initial value problem for the Einstein-Dirac system and the trapped surface formation.	Aug 10	16:50-17:10
Hao Xu	A Generalized Landauer's Principle for Unitarily Transformed Thermal Reservoirs	Aug 10	17:10-17:30
Si-Jiang Yang	The study of thermodynamics and the weak cosmic censorship conjecture	Aug 10	17:30-17:50
Fu-Guo Yang	Critical Phenomenon inside Asymptotically Flat Black Holes with Spontaneous Scalarization	Aug 10	17:50-18:10
Xiaoning Wu	Energy, memory and balance equation of polyhomogenous spacetime	Aug 10	18:10-18:30

Parallel Session Mon-2 (A2)

Speaker	Title	Date	Time
(Mon-2a, Meeting Room 2)		Chair: Yuxiao Liu	
A2. Modified gravity			
Zhongyou Mo	Quantum interference in Teleparallel Gravity	Aug 10	14:00-14:20
Hanlin Song	Multimessenger Tests of the Strong Equivalence Principle and Extra Dimensions with Binary Neutron Star Mergers	Aug 10	14:20-14:40
Udaykrishna Thattarampilly	Inflation from entropy	Aug 10	14:40-15:00
Gabriel Luz Almeida	Compact Binary Dynamics in Einstein-Scalar-Gauss-Bonnet Gravity: From Post-Newtonian Inspirals to Post-Minkowskian Scattering	Aug 10	15:00-15:20
Вячеслав Ущехо	Поиск частиц темной материи в Солнечной системе (Searching for Dark Matter Particles in the Solar System)	Aug 10	15:20-15:40
Aray Muratkhan	Thin Accretion-Disc Transfer Functions in the q-Metric Spacetime	Aug 10	15:40-16:00
(Mon-2b, Meeting Room 2)		Chair: Hanlin Song	
A2. Modified gravity			
Jorge Gigante Valcarcel	Black hole superradiance in Poincaré gauge theory	Aug 10	16:30-16:50
Sebastian Garcia-Saenz	Black hole instabilities and non-minimally coupled fields	Aug 10	16:50-17:10
Saikat Chakraborty	A unified framework to study f-family of gravity theories	Aug 10	17:10-17:30
Chao Zhang	Hunting for the Observational Signature of Universal Horizon and Lorentz-Violation Effects	Aug 10	17:30-17:50
Ayazhan Orazymbet	Equilibrium Structure and Stability of White Dwarfs with Isotropic and Anisotropic Pressure Distributions	Aug 10	17:50-18:10
Xiaomei Kuang	Probing a Lorentz-violating parameter from the orbits of S-stars around Sgr A*	Aug 10	18:10-18:30

Parallel Session Mon-3 (A3+A4)

Speaker	Title	Date	Time
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(Mon-3a, Meeting Room 3)

Chair: Fa-Peng Huang

A4. Gravitational waves-Theory

Mauricio Valencia Villegas	Shock Formation in Cosmic Domain Wall Models	Aug 10	14:00-14:20
Qiliang Zhao	Decay criteria for asymptotic freedom in plane gravitational waves	Aug 10	14:20-14:40
Yun-Long Zhang	The Generation and Detection of Chiral Gravitational Wave Backgrounds	Aug 10	14:40-15:00
Verónica Vazquez-Aceves	Inspiraling Systems in Dense Stellar Environments: Formation, Dynamics, and Detection Challenges	Aug 10	15:00-15:20
Otto Aksele Hannuksela	Future of gravitational wave lensing	Aug 10	15:20-15:40
Yong-Qiang Wang	Recent Progress on Frozen Stars	Aug 10	15:40-16:00

(Mon-3b, Meeting Room 3)

Chair: Zhoujian Cao

A3. Numerical Relativity

A4. Gravitational waves-Theory

Yuchen Du	Worldline Formalism, Eikonal Expansion and the Classical Limit of Scattering Amplitudes	Aug 10	16:30-16:50
Dongchan Kim	Parameter Space Search for Non-merging Ringdown Radiation from Close Hyperbolic Encounters of Two Black Holes	Aug 10	16:50-17:05
Zun Wang	Frequency-Domain Hybridization of Semi-Analytical Binary-Black-Hole Waveforms	Aug 10	17:05-17:20
Yuhe Zeng	Relativistic treatment of extreme mass ratio inspirals crossing accretion disks	Aug 10	17:20-17:35
Zhen-Hao Yang	Quasinormal mode families: Classification and competition	Aug 10	17:35-17:50
Hyeonuk Son	Application of the Post-Minkowskian Effective one-body formalism to non-quasicircular systems	Aug 10	17:50-18:05

Parallel Session Mon-4 (B2)

Speaker	Title	Date	Time
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(Mon-4a, Meeting Room 4)

Chair: Bin Chen

B2. Stringy gravity and AdS/CFT

XianHui Ge	Emergence of Time Semicrystals in Holographic Driven-Dissipative Systems	Aug 10	14:00-14:20
Yang Zhou	Multipartite entanglement and Holography	Aug 10	14:20-14:40
Jia-Rui Sun	Entanglement first law for timelike entanglement entropy and linearized Einstein' s equation	Aug 10	14:40-15:00
Jiaju Zhang	Distinguishability of Black Hole Microstates from AdS/CFT Correspondence	Aug 10	15:00-15:20
Jie-qiang Wu	Canonical Quantization for the Free Massive Vector Field in the Global AdS3 Spacetime with the Covariant Phase Space Formalism	Aug 10	15:20-15:40
Jiang Long	Carrollian correlators in black hole perturbation theory	Aug 10	15:40-16:00

(Mon-4b, Meeting Room 4)

Chair: Jiaju Zhang

B2. Stringy gravity and AdS/CFT

Bin Chen	Coadjoint orbit and gravitational partition function	Aug 10	16:30-16:50
Jun Nian	WAdS/WCFT and Kerr/CFT Correspondences Revisited	Aug 10	16:50-17:10
Jun-Kun Zhao	Universally Diverging Grüneisen Ratio of Holographic Quantum Criticality	Aug 10	17:10-17:30
Peng-Xiang Hao	On the States in Flat/CarrCFT correspondence	Aug 10	17:30-17:50
Lin Chen	Constructing CFTD from TQFTD+1 and Precision Discretization of CFT2	Aug 10	17:50-18:10

Parallel Session Mon-5 (C3+C5+E6)

Speaker	Title	Date	Time
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(Mon-5a, Meeting Room 5)

Chair: Hong Lv

C3. Black hole

E6. Space-based GW detection theory and experiment

Kunyang Li	Modeling massive black hole multiplets dynamical evolution in lively-evolving galaxy environment for precise gravitational wave prediction	Aug 10	14:00-14:20
Yehui Hou	How Photon Polarization Swings Encode Black Hole Ringdown	Aug 10	14:20-14:40
Y.-B. Bae	Multipole Moments of Black Hole Horizons in Binary Mergers	Aug 10	14:40-15:00
Xuefeng Zhang	How to detect gravitational waves in high Earth orbits?--TianQin mission design overview	Aug 10	15:00-15:20
Minghui Du	Taiji Data Challenge and Preliminary Study on Multi-Source Analysis	Aug 10	15:20-15:40
Cinque McFarlane-Blake	Phase-Mediated Attractor Dynamics in Millisecond Pulsar Timing Residuals	Aug 10	15:40-15:55

(Mon-5b, Meeting Room 5)

Chair: Haipeng An

C5. Dark Matter

E6. Space-based GW detection theory and experiment

Tan Chen	Black Hole Accretion in Self-Interacting Dark Matter Halos	Aug 10	16:25-16:45
Pengshun Luo	Search for Dark Matter and Exotic Interactions via Precision Force Measurements	Aug 10	16:45-17:05
Xing Bian	Superconducting Weak Force Sensing for Gravitational Wave Detection	Aug 10	17:05-17:25
Ruihong Gao	Laser acquisition and pointing technique for space-based gravitational wave detection	Aug 10	17:25-17:45
Ayush Hazarika	Photon ring dimming as a signature of photon-axion conversion in Janis-Newman-Winicour naked singularity	Aug 10	17:45-18:05
Yingnan Zhu	Quantitative Evaluation of Gas Damping Effects in High-Precision Gravitational Reference Sensors based on Monte Carlo Numerical Simulation	Aug 10	18:05-18:20

Parallel Session Tue-1 (A1)

Speaker	Title	Date	Time
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(Tue-1a, Meeting Room 1)**Chair: Xiaoning Wu****A1. General relativity: Theory and Mathematical developments**

Masakatsu Kenmoku	Covariant Energy-Momentum Tensor in General Relativity	Aug 11	14:00-14:20
Shaoqi Hou	Shaving off soft hairs and black hole image memory effect	Aug 11	14:20-14:40
Pujian Mao	Supertranslation in the bulk for generic spacetime	Aug 11	14:40-15:00
Rongxin Miao	Constraining holographic networks and parallel universes	Aug 11	15:00-15:20
Carlos Coimbra-Araujo	Merger of binary black holes and their possible outflows	Aug 11	15:20-15:40
Saken Toktarbay	Comparing Shadow Observables in Kerr and Static Quadrupolar Spacetimes	Aug 11	15:40-16:00

(Tue-1b, Meeting Room 1)**Chair: Masakatsu****A1. General relativity: Theory and Mathematical developments****Kenmoku**

Song He	Emergent gravitational action from non-local stress tensor deformations	Aug 11	16:30-16:50
Nitesh Kumar Dubey	From Black Holes to Stars: Rigidity Beyond Einstein Gravity	Aug 11	16:50-17:05
Rostom Karsanov	Singular Misner string fluxes and S-duality	Aug 11	17:05-17:20
Xi Wan	Critical Behavior of Photon Rings in Kerr-Bertotti-Robinson Spacetime	Aug 11	17:20-17:35
Yu-Sen Zhou	Pseudospectrum and (in)stability of black hole total transmission mode	Aug 11	17:35-17:50
Leen Alrawas	The Success of Λ CDM in Reproducing Tight Galaxy Scaling Relations	Aug 11	17:50-18:05
Nihar Ranjan Ghosh	Asymptotic Generation of Kerr Geometry from Schwarzschild via BMS Supertranslations	Aug 11	18:05-18:20

Parallel Session Tue-2 (A2+D1)

Speaker	Title	Date	Time
(Tue-2a, Meeting Room 2)		Chair: Hyung-Mok Lee	
A2. Modified gravity			
D1. Dark Energy			
Paulo Montero-Camacho	No way out? Λ CDM will not be rescued by a high optical depth	Aug 11	14:00-14:20
Gao-Ming Deng	Quasinormal modes of charged black holes and Strong cosmic censorship in conformal Killing gravity	Aug 11	14:20-14:40
Yaghoub Heydarzade	Dark Side of the Universe and Perfect Fluid Universality	Aug 11	14:40-15:00
Hai-Long Jia	Spectral Butterfly Effect and Resilient Ringdown in Thick Braneworlds	Aug 11	15:00-15:15
Yu-Qi Dong	Propagation and polarization of gravitational waves on curved spacetime backgrounds in Einstein-Æther theory	Aug 11	15:15-15:30
Xiao-bin Lai	Cosmological perturbations and gravitational waves in the general Einstein-vector theory	Aug 11	15:30-15:45
Aman Awasthi	Detection Prospects of solar g mods with LISA	Aug 11	15:45-16:00
(Tue-2b, Meeting Room 2)		Chair: TBC	
D1. Dark Energy			
Hussain Md Saddam	A Particle Physics Model of interacting Dark Matter and Dark Energy in Einstein – Gauss – Bonnet Gravity: Constraints from DESI BAO	Aug 11	16:30-16:50
Ibraimova Sayora	Application of the correlation curve method to increase the accuracy of determining the energy of cosmic rays above 1 tev	Aug 11	16:50-17:05
Suyog Garg	Machine learning models for gravitational waveform modelling and source parameter estimation	Aug 11	17:05-17:20
Luis Enrique Padilla Albores	Primordial black hole formation in scalar field cosmologies	Aug 11	17:20-17:35
Ahmad Al-badawi	Schwarzschild-like black hole embedded in a Dehnen-type dark matter halo and a cloud of strings	Aug 11	17:35-17:50
Venkatraja Ramalingam	Analysis of various parameters in Barrows HDE model	Aug 11	17:50-18:05
Priyanka Saha	Effects of dark energy in structure formation	Aug 11	18:05-18:20

Parallel Session Tue-3 (A4+C2+E2+E4+E5)

Speaker	Title	Date	Time
(Tue-3a, Meeting Room 3)		Chair: Kejia Lee	
E2. Observational Astrophysics			
E4. Ground-based GW detection theory and experiment			
E5. PTA GW detection theory and experiment			
Zhenyu Zhang	Autocorrelation signatures in time-resolved black hole flare images: Secondary peaks and convergence structure	Aug 11	14:00-14:20
Haitian Wang	Gravitational Wave Data Analysis using the F-statistic method	Aug 11	14:20-14:40
Joao Lucio dos Santos	Gravitational Lensing of Fast Radio Bursts as a Probe of Primordial Black Holes Abundance: a forecast for radio telescopes	Aug 11	14:40-15:00
Jingbo Wang	Search for single gravitational wave sources with pulsar timing array	Aug 11	15:00-15:20
Qing Yang	Nanohertz gravitational-wave background and individual sources based on cosmological simulation	Aug 11	15:20-15:40
Yin-Jie Li	Measuring Hubble constant with mass function of BBH subpopulations	Aug 11	15:40-16:00
(Tue-3b, Meeting Room 3)		Chair: Cheng-jun Xia	
A4. Gravitational waves-Theory			
C2. Neutron stars & compact objects			
Biping Gong	Possible Mechanism of in-phased Multi-band Radiation from 10TeV to Radio Wave Occurring in a Few Pulsars	Aug 11	16:30-16:50
Yongfeng Huang	Searching for strange quark planets with gravitational waves	Aug 11	16:50-17:10
Jinwon Kim	Evaluating Gravitational Wave Detection Rates using a Frequency and Velocity-Dependent Antenna Response	Aug 11	17:10-17:25
Qi Su	Echo Signatures of Layered Compact Objects: Perturbations of a Double-Shell Model	Aug 11	17:25-17:40
Tianhao Wu	The Impact of Spin Priors on Parameterized Tests of General Relativity	Aug 11	17:40-17:55
Rajasmitha Sahoo	Deformed Magnetized Quark Stars: Structure and Gravitational Wave Signatures	Aug 11	17:55-18:10
Debabrata Dey	Universality in Space – Time ω modes of Quarkyonic Stars	Aug 11	18:10-18:25

Parallel Session Tue-4 (B1+B3+C4)

Speaker	Title	Date	Time
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(Tue-4a, Meeting Room 4)

Chair: Sung-Won Kim

B1. Quantum gravity in curved spacetime**B3. Other topics on Quantum gravity**

Wei-Jia Li	Collective dynamics of holographic fracton solids	Aug 11	14:00-14:20
Wen-Cong Gan	Quantum Damping of Cosmological Shear: A New Prediction from Loop Quantum Cosmologies	Aug 11	14:20-14:40
Dongxue Qu	Quadratic corrections in Covariant Loop Quantum Gravity	Aug 11	14:40-15:00
Gaoping Long	Quantum Geometry Effects in Quantum Field Theory: Hamiltonian constraint Generates Gravity-Matter Entanglement	Aug 11	15:00-15:20
Otto Kong	Dynamical Results Showing Quantum Particles to be Kept from Black Hole Singularity	Aug 11	15:20-15:40
Cong Zhang	Covariant dynamics from static spherically symmetric geometries	Aug 11	15:40-16:00

(Tue-4b, Meeting Room 4)

Chair: Jiandong Zhang

B3. Other topics on Quantum gravity**C4. Wormholes and other massive objects**

Xiangdong Zhang	Non-singular Inflation-Dark Energy Unification Model of Loop Quantum Cosmology	Aug 11	16:30-16:50
Hongguang Liu	Running Without Coordinates: Relational RG in Background-Independent Quantum Gravity	Aug 11	16:50-17:10
Meng-He Wu	Using precession and quasiperiodic oscillations to constrain a rotating regular black hole	Aug 11	17:10-17:30
Jingze Xia	Dynamics and Radiative Signatures of Accretion Flows onto a Kerr-like Wormhole	Aug 11	17:30-17:45
Xiao Yan Chew	Dynamics of Bronnikov-Ellis wormhole with double-null simulation	Aug 11	17:45-18:05
Zhuo-Yu Xian	Lindbladian Dynamics of Black Holes in JT Gravity and the SYK Model	Aug 11	18:05-18:20

Parallel Session Tue-5 (D2+D3+E3)

Speaker	Title	Date	Time
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(Tue-5a, Meeting Room 5)**Chair: Yizhong Fan****E3. Multi-Messenger Astrophysics**

Hyung Mok Lee	Prospects of Dark Siren Cosmology	Aug 11	14:00-14:20
Xue-Ting Zhang	Pre-localization of Massive Black Hole Binaries in the Millihertz Band	Aug 11	14:20-14:40
Anson Chen	Dark Siren Constraint on Cosmology and Modified Gravity with GWTC-5	Aug 11	14:40-15:00
Pedro da Silveira Ferreira	Where Galaxies Point: First Measurement of the Large-Scale Axial Intrinsic Alignment	Aug 11	15:00-15:20
Zhiping Jin	Neutron Star Mergers and the Origin of Elements Beyond Iron	Aug 11	15:20-15:40
Yixuan Dang	Golden and Silver Dark Sirens for precise H0 measurement with HETDEX	Aug 11	15:40-16:00

(Tue-5b, Meeting Room 5)**Chair: Fapeng Huang****D2. Status of Standard cosmology and alternatives****D3. Observational Cosmology****E3. Multi-Messenger Astrophysics**

Sheng-Feng Yan	Primordial Black Holes from non-singular cosmology	Aug 11	16:30-16:50
Chang Feng	Cosmological studies with cosmic microwave background and radio observations	Aug 11	16:50-17:10
Yang Liu	AliCPT-1: First-Season Data Analysis and Preliminary Results	Aug 11	17:10-17:30
Yaqiong Li	The current status of AliCPT	Aug 11	17:30-17:50
Ernazar Abdikamalov	Looking into supernovae with gravitational waves	Aug 11	17:50-18:10

Parallel Session Thu-1 (C1)

Speaker	Title	Date	Time
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(Thu-1a, Meeting Room 4)**Chair: Cosimo Bambi****C1. Relativistic Astrophysics**

Bei You	Reverberation lags viewed in hard X-rays from an accreting stellar-mass black hole	Aug 13	14:00-14:20
Zheng Cao	Using tidal disruption events to study the black hole accretion process and search for intermediate-mass black holes	Aug 13	14:20-14:40
Masoumeh Ghasemi Nodehi	Beyond the Kerr Paradigm: Testing GR with SKA/VLBI Astrophysical Black Holes	Aug 13	14:40-15:00
Hubing Xiao	Chasing the Neutrino Blazar Candidates	Aug 13	15:00-15:20
Ashutosh Tripathi	Multi-wavelength Quasi-periodic Oscillations in Optical and Radio Observations of Blazars	Aug 13	15:20-15:40
Indu Kalpa Dihingia	Probing Black Holes and Naked Singularities with GRMHD Simulations	Aug 13	15:40-16:00

(Thu-1b, Meeting Room 4)**Chair: Sergey Sushkov****C1. Relativistic Astrophysics**

Cosimo Bambi	A space mission to Earth's nearest black hole: reality or science fiction?	Aug 13	16:30-16:50
Chen Zhang	Self-Consistent Parker Bound on Magnetic Monopoles	Aug 13	16:50-17:10
Jinping Zhu	Relativistic Astronomy: Exploring the Universe and Fundamental Physics with Trans-relativistic Cameras	Aug 13	17:10-17:30
Krishna Mohana Ammenadka	Extragalactic Relativistic Jets: Probing the Multiband Emission and Jet Physics of AGN	Aug 13	17:30-17:50
Jie Yang	Impact of mass transfer on the orbital evolution of compact binaries and the correction to gravitational wave form	Aug 13	17:50-18:10
Naresh Kumar Patra	Inferring the Equation of State from Neutron Star Observables via Machine Learning	Aug 13	18:10-18:30

Parallel Session Thu-2 (E1+C5)

Speaker	Title	Date	Time
(Thu-2a, Meeting Room 5)		Chair: Qing Li	
E1. Test of gravity (Experimental gravity)			
C5. Dark Matter			
Qing Li	Development of high-yunQ silica fiber and the research on gravitational experiments	Aug 13	14:00-14:20
Minkang Zhou	Probing gravity and constraint on spin- and velocity-dependent interaction with atom interferometer	Aug 13	14:20-14:40
Go Ogiya	Probing the properties of dark matter through the dynamical evolution of substructures	Aug 13	14:40-15:00
Hongru Liu	Micrometer-diameter high Q silica fiber for milligram-scale torsion pendulum in gravitational experiment	Aug 13	15:00-15:20
Medeu Abishev	Multimetric gravity and chronon layers	Aug 13	15:20-15:40
Ruijie Li	Research on the Dissipation-Coupling Effect in a Two-stage Pendulum System	Aug 13	15:40-15:55
Jia-Ning Chen	Extended Parameterized Spin expansion formalism for ringdown analysis with GW250114	Aug 13	15:55-16:10
YuXin Yang	Contribution from Nonlinear Quasi-normal Modes in GW250114	Aug 13	16:10-16:25
Ryusuke Jinno	First-order phase transitions in the early Universe: gravitational waves, black holes, and feebly-interacting particles	Aug 13	16:25-16:40

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Abstract

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