CQUeST Workshop 2023



Monday, July 31, 2023 - Friday, August 4, 2023

Scientific Program

COUeST Workshop 2023 Program

July 31 2023 (Mon) ~ August 4 2023 (Fri) at Best Western Plus Hotel, Jeonju, Korea

31 July - Day 1] Get to Jeonju 16:00 ~ 17:00 Registration 17:00 ~ 18:00 Discussion

1 August - Day 2 | Gravity and Black Hole 09:00 ~ 09:30 Opening(Director) & Memorial tribute to Prof. □□□

(Invited Session)

 $09:30 \sim 10:00$ Sang-Jin Sin(Hanyang University) ($\square\square\square$, $\square\square\square$)

Symmetry breaking and a few exactly solvable examples in fermion correlations.

10:00 ~ 10:30 Hyun Seok Yang(GIST) (□□□, □□□□□□□)

Physical Applications of Quantum Reference Frame

 $10:30 \sim 11:00$ Coffee Break \square

11:00 ~ 11:30 Hyeong-Chan Kim(Korea National University of Transportation) (steady heat conduction in general relativity

11:30 ~ 12:00 Dong-han Yeom(Pusan National University) ($\square\square$, $\square\square$)

Yang-Mills instantons and the end of black hole evaporation

12:00 ~ 14:00 Lunch Break

(CQUeST Session)

14:00 ~ 14:30 Mu-In Park(CQUeST) (□□□, CQUeST)

On No Scalar-Haired Cauchy-Horizon Theorem in Higher-Curvature Gravities

14:30 ~ 15:00 Jeongwon Ho(CQUeST) (□□□, CQUeST)

15:00 ~ 15:30 Sang-Heon Yi(CQUeST) (□□□, CQUeST)

TBA

15:30 ~ 16:00 Coffee Break □

(Contribute Session)

16:00 ~ 16:30 Jae-Hyuk Oh(Hanyang University) (□□□, □□□)

Stochastic process and holography

16:30 ~ 17:00 Miok Park(IBS-CTPU) (□□□, IBS)

Hairy black holes by spontaneous symmetry breaking

17:00 ~ 17:30 Chen-Te Ma(APCTP)

Modular Average and Weyl Anomaly in Two-Dimensional Schwarzian Theory

2 August - Day 3] Effective Field Theory & Cosmology

(Invited Session) 09:30 ~ 10:00 Jaeweon Lee(Jungwon University) (□□□, □□□) Recent progress of Ultralight dark matter 10:00 ~ 10:30 Chanyong Park(GIST) (□□□, □□□□□□□) Holographic two-point functions in a disorder system 10:30 ~ 11:00 Coffee Break □
11:00 ~ 11:30 Keun-Young Kim(GIST) (□□□, □□□□□□□) Quantum chaos and complexity (tentative) 11:30 ~ 12:00 Imtak Jeon(APCTP) (□□□, APCTP) Supersymmetry and complexified spectrum on Euclidean AdS2
12:00 ~ 14:00 Lunch Break
(CQUeST Session) 14:00 ~ 14:30 Wonwoo Lee(CQUeST) (□□□, CQUeST) Maxwell field in the geometry of a rotating object 14:30 ~ 15:00 Minkyoo Kim(CQUeST) (□□□, CQUeST) On the shoulders of Giants 15:00 ~ 15:30 Sunggeun Lee(CQUeST) (□□□, CQUeST) On energetics of black holes
15:30 ~ 16:00 Coffee Break □
(Contribute Session) 16:00 ~ 16:30 Inyong Cho(SeoulTech University) (□□□, □□□□□□□) Back reaction of cosmological perturbations during inflation 16:30 ~ 17:00 Aaron Poole(KyungHee University) Accelerating black hole thermodynamics from the covariant phase space 17:00 ~ 17:30 Deniz Olgu Devecioglu(CQUeST) Solutions of charged Gauss-Bonnet black holes with scalar hairs
17:30 ~ 18:00 Photo Session
18:30 ~ Banquet
3 August - Day 4] Astroparticle phenomenology
(Invited Session) 09:30 ~ 10:00 Changbom Park(Korea Institute for Advanced Study) (□□□, □□□□□) TBA 10:00 ~ 10:30 Seong Youl Choi(Jeonbuk National University) (□□□, □□□) Constructing the covariant vertices systematically
10:30 ~ 11:00 Coffee Break □

11:00 ~ 11:30 Koun Choi(IBS) ($\square\square\square$, IBS) update on the search for dark matter in neutrino telescopes 11:30 ~ 12:00 Arpan Kar(CQUeST) WIMPs in Dilatonic Einstein Gauss-Bonnet Cosmology

12:00 ~ 14:00 Lunch Break

(CQUeST Session)

14:00 ~ 14:30 Sunghyun Kang(CQUeST) (□□□, CQUeST)

Halo-independent bounds on the non-relativistic effective theory of WIMP-nucleon scattering from direct detection and neutrino observations

14:30 ~ 15:00 Yong-Hui Qi(CQUeST)

Superradiance in the Kerr-Taub-NUT spacetime

15:00 ~ 15:30 Liliana Velasco-Sevilla(CQUeST)

Constraints on Reheating Temperature from GW and DM

15:30 ~ 16:00 Coffee Break □

(Contribute Session)

16:00 ~ 16:30 Gansukh Tumurtushaa(Jeju National University)

Higgs Inflation with a Gauss-Bonnet Term in the Einstein Frame.

16:30 ~ 16:50 Hyomin Kim(CQUeST) (□□□, CQUeST)

White dwarves constraints on Inelastic dark matter and Left-Right symmetric models

16:50 ~ 17:10 Hocheol Lee(CQUeST) (□□□, CQUeST)

Generating Cosmological Anisotropies

17:10 ~ 17:30 Injun Jeong(CQUeST) (□□□, CQUeST)

Multi-dimensional optimization methods to analyze the null results of WIMP direct detection experiments with conservative bounds.

Thank you.