

# Curriculum Vitae

## Personal Information

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**Name:** Che-Yu Chen (陳哲佑)

**Place of Birth:** Tainan, Taiwan

**Date of Birth:** 7<sup>th</sup> November 1989

**Gender:** Male

**Marital Status:** Married

**Citizenship:** Taiwan

**h-index:** 21 (50 publications)

**Research ID:** AAX-2831-2021

## Contact Information

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## Research Positions

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- **Special Postdoctoral Researcher (SPDR)** – Interdisciplinary Theoretical and Mathematical Sciences Program (iTHEMS), RIKEN, Saitama, Japan (Host: Prof. Tetsuo Hatsuda). 4/2023-Present
- **Postdoctoral Research Associate** - Institute of Physics, Academia Sinica, Taipei, Taiwan (Host: Prof. Kin-Wang Ng) 9/2020-3/2023
- **Adjunct Fellow** – Leung Center for Cosmology and Particle Astrophysics, Taiwan (Host: Prof. Pisin Chen) 9/2020-Present
- **Postdoctoral Research Associate** - Department of Physics, National Taiwan University, Taipei, Taiwan (Host: Prof. Jiunn-Wei Chen) 11/2019-8/2020

## Education

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**National Taiwan University, Taipei, Taiwan**

Ph.D student in Physics, NTU

9/2015-10/2019

- **Advisor:** Prof. Pisin Chen, Dr. Mariam Bouhmadi-López
- **Dissertation:** Modified theories of gravity: cosmology and astrophysics
- **Averaged GPA:** 4.17

M.S in Astrophysics, NTU

9/2012-6/2014

- **Advisor:** Prof. Pisin Chen, Dr. Mariam Bouhmadi-López
- **Thesis:** Eddington-Born-Infeld cosmology: a cosmographic approach, a tale of doomsdays and the fate of bound structures
- **Averaged GPA:** 4.15

B.S in Physics, NTU

9/2008-6/2012

- **Averaged GPA:** 3.92

## Awards and Grants

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- FY2025 RIKEN Incentive Research Projects
- 2024 JGRG33 Best Presentation Award
- 2021 MOST Postdoctoral Researcher Academic Research Award (科技部博士後學術研究獎)
- 2021 ASIOP Best Research Paper Award (中研院物理所學者養成優良論文獎)
- 2021 NCTS Postdoc Paper Award (國家理論中心物理組博士後研究論文獎)
- 2020 The Best Presentation Award at AAPPS-DACG workshop
- 2019 IOP Publishing outstanding reviewer award – CQG
- 2019, 2018, 2016, 2015 NTU-CTS Outstanding theoretical paper award
- 2018 The “Galaxy Prize” to the Best Young Presentation at the V Cosmology and the Quantum Vacuum workshop
- 2017, 2015 LeCosPA Outstanding research award

## Publication (\*Corresponding author)

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1. “*Observational features of reflection asymmetric black holes*” **Che-Yu Chen**, Hung-Yi Pu\*, [JCAP 09 \(2024\) 043](#).
2. “*Linear stability of vector Horndeski black holes*” **Che-Yu Chen**, Antonio De Felice\*, Shinji Tsujikawa, [JCAP 07 \(2024\) 022](#).
3. “*Imaging a semi-classical horizonless compact object with strong gravity*” **Che-Yu Chen\***, Yuki Yokokura, [Physical Review D 109, 104058 \(2024\)](#).
4. “*Quasinormal modes of black holes encircled by a gravitating thin disk*” **Che-Yu Chen\***, Petr Kotlařík, [Physical Review D 108, 064052 \(2023\)](#).
5. “*Resonant orbits of rotating black holes beyond circularity: Discontinuity along a parameter shift*” **Che-Yu Chen**, Hsu-Wen Chiang\*, Avani Patel, [Physical Review D 108, 064016 \(2023\)](#).
6. “*A novel test of gravity via black hole eikonal correspondence*” **Che-Yu Chen\***, Yu-Jui Chen, Meng-Yuan Ho, Yung-Hsuan Tseng, [Physics Letter B 845 \(2023\) 138153](#).
7. “*Dressed black holes in the new tensor-vector-scalar theory*” Reginald Christian Bernardo\*, **Che-Yu Chen**, [Gen. Rel. Grav. \(2023\) 55:23](#).
8. “*Resonant islands of effective-one-body dynamics*” **Che-Yu Chen**, Feng-Li Lin\*, Avani Patel, [Physical Review D 106, 084064 \(2022\)](#).
9. “*Slow-roll inflation in  $f(R,T)$  gravity with a  $RT$  mixing term*” **Che-Yu Chen\***, Yakefu Reyimuaji, Xinyi Zhang, [Phys. Dark Univ. 38 \(2022\) 101130](#).
10. “*Annihilation-to-nothing: DeWitt boundary condition inside a black hole*” Suddhasattwa Brahma, **Che-Yu Chen**, Dong-han Yeom\*, [Eur. Phys. J. C \(2022\) 82:772](#).
11. “*Eikonal quasinormal modes and photon orbits of deformed Schwarzschild black holes*” **Che-Yu Chen\***, Hsu-Wen Chiang, Jie-Shiun Tsao, [Physical Review D 106, 044068 \(2022\)](#).
12. “*Testing black hole equatorial reflection symmetry using  $Sgr A^*$  shadow images*” **Che-Yu Chen\***, [Physical Review D 106, 044009 \(2022\)](#).
13. “*On the possible spacetime structures of rotating loop quantum black holes*” **Che-Yu Chen\***, [Int. J. Geom. Meth. Mod. Phys. 19 \(2022\) 11, 2250176](#).
14. “*Curved accretion disks around rotating black holes without reflection symmetry*” **Che-Yu Chen\***, Hsiang-Yi Karen Yang, [Eur. Phys. J. C \(2022\) 82:307](#).

15. “Confronting quantum-corrected teleparallel cosmology with observations” Reginald Christian Bernardo\*, **Che-Yu Chen**, Jackson Levi Said, Yu-Hsien Kung, [JCAP 04 \(2022\) 052](#).
16. “Modified Teleparallel Gravity induced by quantum fluctuations” **Che-Yu Chen**, Yu-Hsien Kung\*, [Phys. Dark Univ. 35 \(2022\) 100956](#).
17. “Modified gravity models for inflation: In conformity with observations” Xinyi Zhang\*, **Che-Yu Chen**, Yakefu Reyimuaji, [Physical Review D 105, 043514 \(2022\)](#).
18. “Traversable wormhole in Einstein 3-form theory with self-interacting potential” Mariam Bouhmadi-López, **Che-Yu Chen**, Xiao Yan Chew\*, Yen Chin Ong, Dong-han Yeom, [JCAP 10 \(2021\) 059](#).
19. “Testing Loop Quantum Gravity from Observational Consequences of Nonsingular Rotating Black Holes” Suddhasattwa Brahma, **Che-Yu Chen\***, Dong-han Yeom, [Phys. Rev. Lett. 126, 181301 \(2021\)](#).
20. “Regular black hole interior spacetime supported by three-form field” Mariam Bouhmadi-López, **Che-Yu Chen\***, Xiao Yan Chew, Yen Chin Ong, Dong-han Yeom, [Eur. Phys. J. C \(2021\) 81:278](#).
21. “Black hole quasinormal modes and isospectrality in Deser-Woodard nonlocal gravity” **Che-Yu Chen\***, Sohyun Park, [Physical Review D 103, 064029 \(2021\)](#).
22. “Generating rotating spacetime in Ricci-based gravity: naked singularity as a black hole mimicker” Wei-Hsiang Shao\*, **Che-Yu Chen**, Pisin Chen, [JCAP 03 \(2021\) 041](#).
23. “Lessons from black hole quasinormal modes in modified gravity” **Che-Yu Chen**, Mariam Bouhmadi-López\*, Pisin Chen, [Eur. Phys. J. Plus 136 \(2021\) 2, 253](#).
24. “Threshold of primordial black hole formation in Eddington-inspired Born-Infeld gravity” **Che-Yu Chen\***, [Int. J. Mod. Phys. D. 30 \(2021\) 02, 2150010](#).
25. “Black hole perturbations and quasinormal modes in hybrid metric-Palatini gravity” **Che-Yu Chen**, Yu-Hsien Kung\*, Pisin Chen, [Physical Review D 102, 124033 \(2020\)](#).
26. “Annihilation-to-nothing: a quantum gravitational boundary condition for the Schwarzschild black hole” Mariam Bouhmadi-López, Suddhasattwa Brahma, **Che-Yu Chen**, Pisin Chen, Dong-han Yeom\*, [JCAP 11 \(2020\) 002](#).
27. “Asymptotic non-flatness of an effective black hole model based on loop quantum gravity” Mariam Bouhmadi-López, Suddhasattwa Brahma, **Che-Yu Chen\***, Pisin Chen, Dong-han Yeom, [Phys. Dark Univ. 30 \(2020\) 100701](#).
28. “A consistent model of non-singular Schwarzschild black hole in loop quantum gravity and its quasinormal modes” Mariam Bouhmadi-López, Suddhasattwa Brahma, **Che-Yu Chen\***, Pisin Chen, Dong-han Yeom, [JCAP 07 \(2020\) 066](#).
29. “Rotating black holes without  $\mathbb{Z}_2$  symmetry and their shadow images” **Che-Yu Chen\***, [JCAP 05 \(2020\) 040](#).
30. “Eikonal black hole ringings in generalized energy-momentum squared gravity” **Che-Yu Chen\***, Pisin Chen, [Physical Review D 101, 064021 \(2020\)](#).
31. “Eddington-inspired-Born-Infeld tensorial instabilities neutralized in a quantum approach” Imanol Albarran, Mariam Bouhmadi-López, **Che-Yu Chen\***, Pisin Chen, [Eur. Phys. J. C \(2020\) 80:33](#).
32. “Separability of the Klein-Gordon equation for rotating spacetimes obtained from Newman-Janis algorithm” **Che-Yu Chen\***, Pisin Chen, [Physical Review D 100, 104054 \(2019\)](#).
33. “Primordial bouncing cosmology in the Deser-Woodard nonlocal gravity” **Che-Yu Chen\***, Pisin Chen, Sohyun Park, [Physics Letter B 796 \(2019\) 112-116](#).

34. “Gravitational perturbations of nonsingular black holes in conformal gravity” **Che-Yu Chen\***, Pisin Chen, [Physical Review D 99, 104003 \(2019\)](#).
35. “Probing Palatini-type gravity theories through gravitational wave detections via quasinormal modes” **Che-Yu Chen\***, Mariam Bouhmadi-López, Pisin Chen, [Eur. Phys. J. C \(2019\) 79:63](#).
36. “Quantum cosmology of Eddington-Born-Infeld gravity fed by a scalar field: the big rip case” Imanol Albarran, Mariam Bouhmadi-López\*, **Che-Yu Chen**, Pisin Chen, [Phys. Dark Univ. 23 \(2019\) 100255](#).
37. “On the consistency of the Wheeler-DeWitt equation in the quantized Eddington-inspired-Born-Infeld gravity” Mariam Bouhmadi-López, **Che-Yu Chen\***, Pisin Chen, [JCAP 12 \(2018\) 032](#).
38. “Regular instantons in the Eddington-inspired-Born-Infeld gravity: Lorentzian wormholes from bubble nucleations” Mariam Bouhmadi-López, **Che-Yu Chen\***, Pisin Chen, Dong-han Yeom, [JCAP 10 \(2018\) 056](#).
39. “Quasinormal modes of massless scalar fields for charged black holes in the Palatini-type gravity” **Che-Yu Chen\***, Pisin Chen, [Physical Review D 98, 044042 \(2018\)](#).
40. “Black hole solutions in mimetic Born-Infeld gravity” **Che-Yu Chen\***, Mariam Bouhmadi-López, Pisin Chen, [Eur. Phys. J. C \(2018\) 78:59](#).
41. “The mimetic Born-Infeld gravity: The primordial cosmos and spherically symmetric solutions” **Che-Yu Chen\***, Mariam Bouhmadi-López, Pisin Chen, [Galaxies 2017 5\(4\) 87](#).
42. “Primordial cosmology in mimetic born-infeld gravity” Mariam Bouhmadi-López, **Che-Yu Chen\***, Pisin Chen, [JCAP 11 \(2017\) 053](#).
43. “Quantum cosmology of the big rip: Within GR and in a modified theory of gravity” Mariam Bouhmadi-López\*, Imanol Albarran, **Che-Yu Chen**, [Universe 3 \(2017\) no.2, 36](#).
44. “Doomsdays in a modified theory of gravity: A classical and a quantum approach” Imanol Albarran, Mariam Bouhmadi-López\*, **Che-Yu Chen**, Pisin Chen, [Physics Letter B 772 \(2017\) 814-818](#).
45. “Singular instantons in Eddington-inspired-Born-Infeld gravity” Frederico Arroja, **Che-Yu Chen\***, Pisin Chen, Dong-han Yeom, [JCAP 03 \(2017\) 044](#).
46. “Towards the quantization of Eddington-inspired-Born-Infeld theory” Mariam Bouhmadi-López\*, **Che-Yu Chen**, [JCAP 11 \(2016\) 023](#).
47. “Modified Eddington-inspired-Born-Infeld gravity with a trace term” **Che-Yu Chen\***, Mariam Bouhmadi-López, Pisin Chen, [Eur. Phys. J. C \(2016\) 76:40](#).
48. “Eddington-Born-Infeld cosmology: a cosmographic approach, a tale of doomsdays and the fate of bound structures” Mariam Bouhmadi-López\*, **Che-Yu Chen**, Pisin Chen, [Eur. Phys. J. C \(2015\) 75:90](#).
49. “Cosmological singularities in Born-Infeld determinantal gravity” Mariam Bouhmadi-López\*, **Che-Yu Chen**, Pisin Chen, [Physical Review D 90, 123518 \(2014\)](#).
50. “Is Eddington-Born-Infeld theory really free of cosmological singularities?” Mariam Bouhmadi-López\*, **Che-Yu Chen**, Pisin Chen, [Eur. Phys. J. C \(2014\) 74:2802](#).

## International Conference

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- APCTP workshop on gravitational waves, April 21-25 (2025), ASIoP, Taipei, Taiwan
- Asymptotics in astrophysics iTHEMS workshop, February 25-28 (2025), Kobe, Japan
- JGRG33 workshop, December 2-6 (2024), Kindai University, Japan (**The Best Presentation Award**)
- YITP long-term workshop GC2024, January 29-March 1 (2024), YITP, Kyoto, Japan
- JGRG32 workshop, November 27-December 1 (2023), Nagoya University, Japan

- CosPA2023, November 10-13 (2023), Chinese University of Hong Kong, Hong Kong
- NEB-20, Recent Developments in Gravity, September 11-14 (2023), Athens, Greece
- XXV SIGRAV conference, September 4-8 (2023), SISSA, Trieste, Italy
- ICGAC15 conference, July 3-7 (2023), Gyeongju, Korea
- KEK-PH2022, November 29-December 2 (2022), Tsukuba, Japan
- JGRG31 workshop (online), October 24-28 (2022)
- 31st Texas Symposium on Relativistic Astrophysics, September 12-16 (2022), Prague, Czechia
- The Future is Illuminating (online), June 28-30 (2022)
- NCTS Annual Theory Meeting, December 15-17 (2021), National Taiwan University, Taiwan
- JGRG30 workshop (online), December 6-10 (2021)
- LeCosPA 4th Symposium, November 29-December 3 (2021), National Taiwan University, Taiwan
- Midwest Relativity Meeting (online), November 11-13 (2021)
- The ngEHT science meeting (online), November 1-5 (2021)
- Regular BH shadows workshop (online), October 18-21 (2021) *(The Best Poster Award)*
- International Joint Workshop on the SM and Beyond, October 12-15 (2021), NTU/NTHU, Taiwan
- AAPPS-DACG workshop (online), October 4-8 (2021)
- Black Holes Inside and Out (online), September 27-October 1 (2021)
- Alternative Gravities and Fundamental Cosmology (online), September 6-10 (2021)
- Asia-Pacific Workshop on Particle Physics and Cosmology (online), August 2-6 (2021)
- Geometric Foundations of Gravity 2021 (online), June 28-July 2 (2021)
- BritGrav21 meeting (online), April 12-16 (2021)
- BSM-2021 Conference (online), March 29-April 2 (2021)
- The ngEHT science meeting (online), February 22-26 (2021)
- AAPPS-DAGC workshop (online), November 9-13 (2020) *(The Best Presentation Award)*
- ICGAC14 conference, August 17-21 (2020), National Central University, Taiwan
- APCTP GWC workshop, November 30-December 4 (2019), Academia Sinica, Taiwan
- JGRG29 workshop, November 25-29 (2019), Kobe University, Japan
- KMI workshop, April 2-4 (2019), Nagoya University, Japan
- V Cosmology and the Quantum Vacuum, September 2-8 (2018), Benasque, Spain  
*(The “Galaxy Prize” to the Best Young Presentation)*
- Third LeCosPA Symposium, November 27-29 (2017), National Taiwan University, Taiwan
- IV Cosmology and the Quantum Vacuum, September 4-8 (2017), Segovia, Spain
- Second LeCosPA Symposium, December 14-18 (2015), National Taiwan University, Taiwan

## Seminar and talks

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1. **Joining black hole imaging and ringdown: A novel view of testing gravity** – Invited talk on APEC seminar at Kavli IPMU, Japan 5/2025
2. **Is black hole spectroscopy reliable in testing GR?** – Invited talk on NTHU HEP seminar, HsinChu, Taiwan 5/2025
3. **Black hole spectroscopy: before we go further** – Invited talk on the APCTP-GW2025 workshop, Taipei, Taiwan. 4/2025
4. **Observational features of equatorial asymmetric black holes** – Invited talk on Space Science Seminar (online) 4/2025



5. **Listening to black hole portrayal: Testing gravity through joining GW and black hole image observations** – Invited talk on NCU seminar, Taoyuan , Taiwan 3/2025
6. **Listening to black hole portrayals** – Invited talk at the asymptotics in astrophysics iTHEMS workshop, Kobe, Japan 2/2025
7. **Is black hole spectroscopy reliable in testing GR?** – Invited talk on ASIoP seminar, Taiwan 12/2024
8. **Testing the Kerr black hole hypothesis** – Talk given at NCU, Taiwan 12/2024
9. **Imaging a semiclassical horizonless compact object: Darkening effect through inner redshifts** – JGRG33 workshop, Osaka, Japan (**The Best Presentation Award**) 12/2024
10. **Observational features of black holes without equatorial reflection symmetry** – Invited talk on RESCEU seminar, University of Tokyo (online) 6/2024
11. **Imaging a semi-classical horizonless compact object with strong redshift** – Invited talk at the Focus Session (New perspectives on quantum cosmology) of KPS meeting (online) 4/2024
12. **Observational features of reflection asymmetric black holes** – Invited talk at EHT GPWG meeting (online) 4/2024
13. **Observational features of black holes without equatorial reflection symmetry** – Rikkyo University, Japan 3/2024
14. **Resonant orbits and chaos of rotating black holes beyond circularity** – GC2024 at YITP, Kyoto, Japan 2/2024
15. **Listening to black hole portrayal: A new view to test gravity** – Waseda University, Japan 12/2023
16. **Testing black hole eikonal correspondence** – JGRG32 workshop, Nagoya, Japan 11/2023
17. **Testing black hole eikonal correspondence** – CosPA2023 at CUHK, Hong Kong 11/2023
18. **Chaotic orbital dynamics of non-Kerr black hole spacetimes** – GSROC seminar (online) 11/2023
19. **Resonant orbits and chaos of rotating black holes beyond circularity** – Talk given at NEB20, Athens, Greece 9/2023
20. **Testing black hole eikonal correspondence** – XXV SIGRAV conference at SISSA, Trieste, Italy 9/2023
21. **Testing black hole eikonal correspondence** – ICGAC15, Gyeongju, Korea 7/2023
22. **Testing black hole eikonal correspondence** – Talk given at LeCosPA NTU, Taipei, Taiwan 3/2023
23. **Testing black hole eikonal correspondence** – Talk given at CYCU, Taoyuan, Taiwan 3/2023
24. **Testing black hole eikonal correspondence** – YangZhou University, China (online) 1/2023
25. **On the connection between black hole ringdown and images** – Invited talk on KEK Theory Meeting, Tsukuba, Japan 11/2022
26. **On the connection between black hole ringdown and images** – Talk given at NCUT, Taiwan 11/2022
27. **Geometric-optics correspondence of deformed black holes** – JGRG31 workshop (online) 10/2022
28. **Eikonal quasinormal modes and photon orbits of deformed Schwarzschild black holes** – 31th Texas Symposium, Prague, Czech Republic 9/2022
29. **Black Holes in a nutshell** – Invited lecture on NCTS-TCA Summer School Program (online) 7/2022
30. **Eikonal quasinormal modes and photon orbits of deformed Schwarzschild black holes** – The Future is Illuminating (online) 6/2022
31. **Black Hole QNMs in GR and Beyond** – Talk given at NTHU, HsinChu, Taiwan 4/2022
32. **Testing equatorial reflection symmetry of rotating Black Holes** – NCTS Theoretical Physics Mini-Workshop, Taipei, Taiwan 1/2022
33. **Exploring strong gravity: Black holes inside and out** – Talk given at NCKU, Taiwan 1/2022

34. **Regular black holes and traversable wormholes supported by 3-form** – NCTS annual meeting, Taipei, Taiwan 12/2021
35. **Testing equatorial reflection symmetry of rotating black holes** – JGRG30 workshop (online) 12/2021
36. **Exploring strong gravity: from black holes inside and out** – Talk given at NSYSU, Taiwan 12/2021
37. **Black Hole QNMs in GR and Beyond** – The 4th LeCosPA Symposium, Taipei, Taiwan 11/2021
38. **Probing equatorial reflection asymmetry of a black hole: Accretion disk and ring image** – ngEHT meeting (online) 11/2021
39. **Regular black holes and wormholes supported by 3-form: Theory and observation** – Regular BH shadows workshop (online) **(Oral Presentation on the Best Poster Award)** 10/2021
40. **Testing rotating black holes without reflection symmetry** – International Joint Workshop on the SM and Beyond, HsinChu, Taiwan 10/2021
41. **Black Hole Quasinormal Modes in GR and Beyond** – Talk given at NTU, Taiwan (online) 9/2021
42. **Probing black holes without  $\mathbb{Z}_2$  symmetry: A theory-agnostic approach** – ALTECOSMOFUN'21 (online) 9/2021
43. **Black Hole Quasinormal Modes in GR and Beyond** – Asia-Pacific Workshop 2021 (online) 8/2021
44. **Non-singular Rotating Black Hole Inspired by Loop Quantum Gravity and Its Observational Consequences** – Geometric Foundations of Gravity (online) 6/2021
45. **Black Hole Quasinormal Modes in General Relativity and Beyond** – Talk given at NTU LeCosPA, Taiwan (online) 6/2021
46. **Black Hole Shadow as a Probe to Fundamental Aspects of Gravity** – Talk given at NYCU, HsinChu, Taiwan 5/2021
47. **Non-singular Rotating Black Hole Inspired by Loop Quantum Gravity and Its Observational Consequences** – BritGrav21 meeting (online) 4/2021
48. **Black Hole Image as a Probe to Fundamental Nature of Gravity** – Talk given at NTHU, HsinChu, Taiwan 4/2021
49. **Testing Fundamental Physics Using Black Hole Shadows** – BSM2021 (online) 3/2021
50. **Black Hole Shadow as a Probe to Fundamental Aspects of Gravity** – Talk given at YangZhou University, China (online) 3/2021
51. **Probing Strong Gravity and Fundamental Physics via Black Hole Shadows: A Theory Agnostic Approach** – ngEHT meeting (online) 2/2021
52. **Probing Strong Gravity and Fundamental Physics Using Black Hole Shadows: A Theory-Agnostic Approach** – AAPPS-DACG (online) **(The Best Presentation Award)** 11/2020
53. **Probing Strong Gravity and Fundamental Physics Using Black Hole Shadows: A Theory-Agnostic Approach** – ASIoP, Taipei, Taiwan 9/2020
54. **Regular Black Hole Interior Spacetime Supported by Three-Form Field** – ICGAC14, Taoyuan, Taiwan 8/2020
55. **Black Hole Perturbations within Modified Theories of Gravity** – Talk given at NCU, Taoyuan, Taiwan 3/2020
56. **Testing Gravity Theories with Gravitational Waves: Quasinormal Modes** – APCTP GWC workshop, Taipei, Taiwan 12/2019
57. **Testing Gravity Theories with Gravitational Waves: Quasinormal Modes** - JGRG29 workshop, Kobe, Japan 11/2019

58. **Testing gravity theories with gravitational waves from black hole perturbations** - Talk given in KMI workshop, Nagoya, Japan 4/2019
59. **Probing Palatini-type gravity theories through gravitational wave detections via quasinormal modes** - Talk given at APCTP, Pohang, Korea 12/2018
60. **Quasi-normal modes for charged black holes in the Palatini-type gravity** - A one-hour talk given at the V Cosmology and the Quantum Vacuum workshop held in Benasque, Spain  
(The “Galaxy Prize” to the Best Young Presentation) 9/2018
61. **Lecture on Palatini type of theories** - the Basque Country University, Bilbao, Spain 12/2017
62. **Avoidance for cosmological singularities via EiBI quantum cosmology** - Talk given at the Third LeCosPA International Symposium, Taipei, Taiwan 11/2017
63. **The Mimetic Born-Infeld gravity: The primordial cosmos and spherically symmetric solutions** - IV Cosmology and the Quantum Vacuum workshop, Segovia, Spain 9/2017
64. **Quantum avoidance of the big rip singularity in Eddington-inspired Born-Infeld theory** - Talk given at the University of Beira Interior, Covilha, Portugal 2/2017
65. **Quantum avoidance of the big rip singularity in Eddington-inspired Born-Infeld theory** - Talk given at NTU LeCosPA Mini Workshop 12/2016
66. **Cosmological singularities in EiBI theory and its possible extension** – UBI 2/2016
67. **Second LeCosPA International Symposium - Everything about Gravity (Parallel Session)** 12/2015
68. **Is Eddington-Born-Infeld theory really free of cosmological singularities?** - Talk given at 6-th Joint NCTS/FGCPA-LeCosPA Meeting on Dark Energy, NTU, Taipei, Taiwan 5/2013

## Teaching Assistant at NTU

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1. **Introduction to Astrophysics** 2/2019
2. **General Relativity** 9/2018
3. **Applied Math (III), General Astronomy** 2/2018
4. **Statistical Physics (II), Our Amazing Universe!** 9/2017
5. **Quantum Mechanics (II), General Astronomy** 2/2017
6. **Cosmological Physics, Knowing the Heaven** 9/2016
7. **Advanced Cosmological Physics, Mechanics (II)** 2/2016
8. **Cosmological Physics, Mechanics** 9/2015

## Experience

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- Conference organization: SOC of AAPPS-DACG workshop 2021, NCTS-iTHEMS Joint Workshop on Matters to Spacetime: Symmetries and Geometry 2024
- Organizing [Intercontinental Seminars on Gravity and Cosmology](#) (ISGC)
- Referee/Reviewer: Physical Review D, Classical and Quantum Gravity, JCAP, European Physical Journal C, Physics Letters B, Physics of the Dark Universe, General Relativity and Gravitation, Advances in Mathematical Physics, Advances in High Energy Physics, Chinese Journal of Physics, Annals of Physics, Chinese Physics C, Communications in Theoretical Physics, International Journal of Modern Physics A, Journal of Applied Mathematics and Physics, Modern Physics Letters A
- Supervisor of NCTS-TCA Summer School Program 2022 7/2022
- Supervisor of NCTS-TCA Summer School Program 2021 7/2021



- Research Cooperation Program in Spain for two weeks 9/2013
- Member of LeCosPA, NTU 2011-2020
- Member of NTU volleyball school team 2008-2016
- General coordinator of NTU man volleyball all-star game 5/2012
- Substituted Military Service, department of education, Taipei City Government 8/2014-7/2015
- Subject GRE physics: 990

## **Skills**

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**Cosmology, Modified Gravity, Black Hole Physics, Gravitational Waves**

**Languages:** English (fluent), Mandarin Chinese (native), Hokkien (native), Japanese (intermediate)

**Computer:** Mathematica, LaTeX, Python, Microsoft Word, Excel and Power Point

**Hobbies:** Volleyball, Marathon