Baoyi Chen Curriculum Vitae

Contact California Institute of Technology baoyi@tapir.caltech.edu Information 1200 E. California Blvd fermionic.me Pasadena, CA 91125 USA (+1)-626-200-5738 **EDUCATION** Ph.D. Physics Expected June 2020 California Institute of Technology, Pasadena, CA, USA Dissertation Advisor: Prof. Yanbei Chen Dissertation Title: to be determined **B.S.** Materials Physics June 2015 Nanjing University, Nanjing, Jiangsu, China Thesis Title: "Into the Magnetic Skyrmion" EMPLOYMENT Graduate Research and Teaching Assistant Fall 2015 - present California Institute of Technology, Pasadena, CA, USA Undergraduate Visiting Internship Student Summer 2014 The Hong Kong University of Science and Technology, Hong Kong, China Research General relativity, black hole physics, and quantum field theory in curved spacetime. Current Interests focus includes near-horizon black hole physics, and physical implications from gravitational waves experiments. ORCID: 0000-0002-3927-6843 **PUBLICATIONS** (ONLINE) arXiv: https://arxiv.org/a/chen_b_3.html INSPIRE-HEP: http://inspirehep.net/author/profile/Bao.Yi.Chen.2 Google Scholar: https://scholar.google.com/citations?user=hqZzQ4UAAAAJ Honors and Samsung Scholarship 2013 AWARDS Samsung Electronics Co., Ltd. 1st prize of CUMCM, Provintial Level 2013 Contemporary Undergraduate Mathematical Contest in Modeling 2013 **Outstanding Student Award** 2012 Nanjing University

2nd prize of CUMCM, National Level

Contemporary Undergraduate Mathematical Contest in Modeling 2012

2012

TEACHING AND MENTORING	Teaching Assistant, California Institute of Technology	
	☐ Ph 139, Introduction to Particle Physics	Spring 2019
	☐ Ph 125, Quantum Mechanics	Winter 2018
	☐ Ph 205, Relativistic Quantum Mechanics	Winter 2017
	☐ Ph 106, Topics in Classical Physics	Fall 2017
	SURF Co-Mentor, California Institute of Technology	
	,	Summer 2019
	SURF Co-Mentor, LIGO	
		Summer 2019
Language and Skills	Natural Language: Native in Mandarin. Fluent in English.	
	Programming Language: Proficient in Mathematica, Python, Bash. C/C++, Swift.	Experience in
	Markup Language: Proficient in IATEX, Markdown. Experience in HTML, CSS.	
	Github: https://github.com/hughug	
Invited Talks	1. Instability of exotic compact objects and its implications for GW echoes	[slides]
	Perimeter Institute, Waterloo, ON, Canada	April 2019
Contributed Talks	1. Instability of exotic compact objects and its implications for GW echoes	[slides]
	GR 22 & Amaldi 13, Valencia, Spain	July 2019
	2. Gedanken experiments to destroy a BTZ black hole	
	APS April Meeting 2019, Denver, CO, USA	April 2019
	3. Deformations of extremal black holes in GR and from stringy interaction	s [\square]
	34 th Pacific Coast Gravity Meeting, Caltech	March 2018
	APS April Meeting 2018, Columbus, OH	April 2018
	4. Linear metric perturbations in near-horizon extremal Kerr	
	$33^{\rm rd}$ Pacific Coast Gravity Meeting, UCSB	March 2017
PUBLICATIONS IN PREPARATION	1. B. Chen , Feng-Li Lin, Bo Ning (2019), A new bound on quantum gravity via weak cosmic censorship	
Non-Refereed Publications	 B. Chen, Yanbei Chen, Yiqiu Ma, Ka-Lok R. Lo, Ling Sun (2019), exotic compact objects and its implications for gravitational-wave echoes, by Phys. Rev. Lett , gr-qc/1902.08180 	

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REFEREED PUBLICATIONS

- 1. **B. Chen**, Feng-Li Lin, Bo Ning (2019), Gedanken experiments to destroy a BTZ black hole, Phys. Rev. D 100, 044043, [gr-qc/1902.00949]
- B. Chen, L. C. Stein (2018), Deformation of extremal black holes from stringy interactions, Phys. Rev. D 97, 084012, [gr-qc/1802.02159]
- 3. **B. Chen**, L. C. Stein (2017), Separating metric perturbations in near-horizon extremal Kerr spacetimes, Phys. Rev. D **96**, 064017, [gr-qc/1707.05319]
- 4. B. Chen, G. Chen, Y. E. Cheung, R. Xie, Y. Xin (2015), Top-forms of leading singularities in nonplanar multi-loop amplitudes, Eur. Phys. J. C 78 164, [hep-th/1507.03214]
- B. Chen, G. Chen, Y. E. Cheung, Y. Li, R. Xie, Y. Xin (2014), Nonplanar On-shell Diagrams and Leading Singularities of Scattering Amplitudes, Eur. Phys. J. C 77 80, [hep-th/1411.3889]

References

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Leo C. Stein

Assistant Professor of Physics University of Mississippi, Oxford, MS, USA