

CONTACT INFORMATION	California Institute of Technology 1200 E. California Blvd Pasadena, CA 91125 USA	baoyi@tapir.caltech.edu fermionic.me (+1)-626-200-5738
EDUCATION	Ph.D. Physics California Institute of Technology, Pasadena, CA, USA Dissertation Advisor: Prof. Yanbei Chen Dissertation Title: <i>“Near horizon black hole physics”</i>	Expected June 2021
	B.S. Materials Physics Nanjing University, Nanjing, Jiangsu, China Thesis Title: <i>“Into the Magnetic Skyrmion”</i>	June 2015
EMPLOYMENT	Graduate Research and Teaching Assistant California Institute of Technology, Pasadena, CA, USA	Fall 2015 - present
	Undergraduate Visiting Internship Student The Hong Kong University of Science and Technology, Hong Kong, China	Summer 2014
RESEARCH INTERESTS	General relativity, black hole physics, and quantum field theory in curved spacetime. Current focus includes near-horizon black hole physics, and physical implications from gravitational-wave experiments.	
PUBLICATIONS (ONLINE)	ORCID: 0000-0002-3927-6843 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 AWARDS	Caltech C Fellowship Caltech	2020
	Samsung Scholarship Samsung Electronics Co., Ltd.	2013
	1st prize of CUMCM, Provincial Level Contemporary Undergraduate Mathematical Contest in Modeling 2013	2013
	Outstanding Student Award Nanjing University	2012
	2nd prize of CUMCM, National Level Contemporary Undergraduate Mathematical Contest in Modeling 2012	2012

TEACHING AND MENTORING	Teaching Assistant , California Institute of Technology	
	□ Ph 236, General Relativity	Fall 2019
	□ 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	
	Daining Xiao (undergraduate), University of Cambridge	Summer 2019
	SURF Co-Mentor , LIGO	
	Shuo Xin (undergraduate), Tongji University	Summer 2019
PROFESSIONAL ACTIVITIES	Journal Referee	
	Physics Letters B	
LANGUAGE AND SKILLS	Natural Language: Native in Mandarin. Fluent in English.	
	Programming Language: Proficient in MATHEMATICA, Python, Bash. Experience in C, Swift.	
	Markup Language: Proficient in L ^A T _E X, Markdown. Experience in HTML, CSS.	
	Github: https://github.com/hughug	
INVITED TALKS	1. <i>Instability of exotic compact objects and its implications for GW echoes</i> [slides]	
	Perimeter Institute, Waterloo, ON, Canada	April 2019
CONTRIBUTED TALKS	1. <i>Instability of exotic compact objects and its implications for GW echoes</i> [slides]	
	GR 22 & Amaldi 13, Valencia, Spain	July 2019
	2. <i>Gedanken experiments to destroy a BTZ black hole</i> [PDF]	
	APS April Meeting 2019, Denver, CO, USA	April 2019
	3. <i>Deformations of extremal black holes in GR and from stringy interactions</i> [PDF]	
	34 th Pacific Coast Gravity Meeting, Caltech	March 2018
	APS April Meeting 2018, Columbus, OH	April 2018
	4. <i>Linear metric perturbations in near-horizon extremal Kerr</i> [PDF]	
	33 rd Pacific Coast Gravity Meeting, UCSB	March 2017
PUBLICATIONS IN PREPARATION	1. Shuo Xin, B. Chen , et. al. <i>Gravitational-wave echoes from spinning exotic compact remnant objects: numerical waveforms from the Teukolsky equation</i>	

NON-REFEREED
PUBLICATIONS

1. **B. Chen**, Qingwen Wang, Yanbei Chen (2020), *Tidal response and near-horizon boundary conditions for spinning exotic compact objects*, prepared for submission to Phys. Rev. D, [gr-qc/2012.10842](#)
2. **B. Chen**, Yanbei Chen, Yiqiu Ma, Ka-Lok R. Lo, Ling Sun (2019), *Instability of exotic compact objects and its implications for gravitational-wave echoes*, prepared for submission to Phys. Rev. Lett, [gr-qc/1902.08180](#)

REFEREED
PUBLICATIONS

1. **B. Chen**, Feng-li Lin, Bo Ning, Yanbei Chen (2020), *Constraints on low-energy effective theories from weak cosmic censorship*, *Phys. Rev. Lett.* **126**, 031102, [[gr-qc/2006.08663](#)]
2. **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](#)]
3. **B. Chen**, L. C. Stein (2018), *Deformation of extremal black holes from stringy interactions*, *Phys. Rev. D* **97**, 084012, [[gr-qc/1802.02159](#)]
4. **B. Chen**, L. C. Stein (2017), *Separating metric perturbations in near-horizon extremal Kerr spacetimes*, *Phys. Rev. D* **96**, 064017, [[gr-qc/1707.05319](#)]
5. **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](#)]
6. **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

Yanbei Chen

Professor of Physics

California Institute of Technology, Pasadena, CA, USA

yanbei@caltech.edu

(+1)-626-395-4258

Feng-Li Lin

Professor of Physics

National Taiwan Normal University, Taipei, Taiwan

fengli.lin@gmail.com

(+886)-2-7734-6035

Leo C. Stein

Assistant Professor of Physics

University of Mississippi, Oxford, MS, USA

lcstein@olemiss.edu

(+1)-662-915-1941