

Hare Krishna

CONTACT	Postdoctoral Fellow, Weinberg Theory Center, Department of Physics, University of Texas at Austin, Austin, TX 78705, USA hare.krishna@austin.utexas.edu , hkrishna.phy@gmail.com Citizenship: Indian
EMPLOYMENT	University of Texas at Austin Postdoctoral Fellow, Weinberg Theory Center, Department of Physics, August 2024–present. Stony Brook University Graduate Research Assistant, C.N. Yang Institute for Theoretical Physics, August 2020–August 2024.
EDUCATION	Stony Brook University Ph.D. in Physics, August 2024. Thesis Advisor: Martin Roček. Thesis: <i>Aspects of holography in AdS and flat spacetime</i> . Indian Institute of Science Education and Research Bhopal B.S.-M.S. Dual Degree in Physics, May 2017. Thesis Advisor: Suvankar Dutta. Thesis: <i>Holography for non-relativistic systems</i> .
RESEARCH INTERESTS	Quantum gravity and holography in de Sitter, asymptotically flat, and AdS spacetimes; Celestial/Carrollian field theory; Black holes and quantum information, Hydrodynamics, Quantum chaos
AWARDS AND FELLOWSHIPS	Postdoctoral support at the University of Texas at Austin through NSF funding and the CNS Spark Grant in celestial holography (PI: Elena Cáceres). Graduate support at Stony Brook University as Teaching Assistant (2018–2020), Graduate Assistant (2020–2023), and Research Assistant (2023–2024). INSPIRE Fellowship, Ministry of Human Resource Development, Government of India, IISER Bhopal, 2012–2017. Jawahar Navodaya Vidyalaya, Government of India residential-school program, 2005–2012. NTSE Fellowship, NCERT and Ministry of Human Resource Development, Government of India, 2008–2012
EDITORIAL WORK	Referee for <i>Classical and Quantum Gravity</i> , <i>Journal of High Energy Physics (JHEP)</i> , <i>Nuclear Physics-B</i> .
PUBLICATIONS	[1] Hare Krishna “Dirichlet gravitons in AdS_4 and $\mathcal{L}_{\Lambda w_{1+\infty}}$ wedge algebra”, arXiv:2609.36764 [hep-th] (2026). [2] Hare Krishna and Vaishnavi Patil, “Aspects of Carrollian field theory from holography”, arXiv:2608.12241 [hep-th] (2026). [3] Elena Cáceres, Hare Krishna, Harita Palani Balaji, and Vaishnavi Patil, “Holo-

graphic entanglement entropy with conformal boundary conditions”, [arXiv:2608.06277 \[hep-th\]](#) (2026).

- [4] Willy Fischler, Hare Krishna, and Sarah Racz, “Seeing double: shock waves and the de Sitter horizon”, *JHEP* **07** (2026) 114, [arXiv:2511.03781 \[hep-th\]](#).
- [5] Elena Cáceres and Hare Krishna, “On thermal holographic RG flows”, [arXiv:2510.09955 \[hep-th\]](#) (2025).
- [6] Willy Fischler, Hare Krishna, and Sarah Racz, “There is more to the de Sitter horizon than just the area”, *JHEP* **07** (2025) 103, [arXiv:2412.12097 \[hep-th\]](#).
- [7] Hare Krishna and Jay Bhambure, “A stress tensor for asymptotically flat spacetime”, [arXiv:2412.08588 \[hep-th\]](#) (2024).
- [8] Arash Arabi Ardehali and Hare Krishna, “Topologically charged BPS microstates in AdS_3/CFT_2 ”, *JHEP* **03** (2025) 069, [arXiv:2411.13824 \[hep-th\]](#).
- [9] Hare Krishna, “Celestial gluon and graviton OPE at loop level”, *JHEP* **03** (2024) 176, [arXiv:2310.16687 \[hep-th\]](#).
- [10] Hare Krishna and Y. P. Wang, “Celestial holography from chiral strings”, *JHEP* **06** (2024) 178, [arXiv:2308.11799 \[hep-th\]](#).
- [11] Hare Krishna and B. Sahoo, “Universality of loop corrected soft theorems in 4d”, *JHEP* **11** (2023) 233, [arXiv:2308.16807 \[hep-th\]](#).
- [12] Arash Arabi Ardehali and Hare Krishna, “Modified supersymmetric indices in AdS_3/CFT_2 ”, *JHEP* **01** (2024) 099, [arXiv:2307.15037 \[hep-th\]](#).
- [13] Hare Krishna and D. Rodriguez-Gomez, “Holographic thermal correlators revisited”, *JHEP* **11** (2021) 139, [arXiv:2108.00277 \[hep-th\]](#).
- [14] Hare Krishna and S. Dutta, “Light-Cone Reduction vs. TsT transformations: A Fluid Dynamics Perspective”, *JHEP* **05** (2018) 029, [arXiv:1803.03948 \[hep-th\]](#).

[INSPIRE-HEP publication profile](#) [Google Scholar](#)

Doctoral thesis: “Aspects of holography in AdS and flat spacetime”, Stony Brook University (2024).

Upcoming work: “Conformal boundary conditions and OTOC”.

INVITED TALKS

Dirichlet gravitons in AdS and wedge algebra of $\mathcal{L}_\Lambda w_{1+\infty}$, Harvard university, Celestial holography conference, October 2026.

Holographic entanglement entropy with conformal boundary condition, IFLP Argentina, hep-th group meeting, October 2026.

de Sitter perturbation theory and holography, South-West string conference, Arizona State University, Feb 2026

Seeing double: shock waves and the de Sitter horizon, hep-th seminar, University of Texas at Austin, Jan 2026

Double scaled SYK and 3d de Sitter gravity, Holography Journal Club, Weinberg Theory Group, University of Texas at Austin, October 2025.

Holographic stress tensor for asymptotically flat spacetime, Caltech, April 2025.

Holography to the rescue! Are we a hologram?, Department of Physics, University of Texas at Austin, February 2025.

A stress tensor for asymptotically flat spacetime, Celestial Holography Seminar Series, online, January 2025.

A stress tensor for asymptotically flat spacetime, Holography Journal Club, University of Texas at Austin, September 2024.

Gravitational waves from loop corrected soft theorem, Brown Bag Seminar, University of Texas at Austin, September 2024.

Universality of loop corrected soft theorems, Indian Institute of Science Education and Research Bhopal, February 2024.

Modified supersymmetric indices, Simons Center for Geometry and Physics, December 2023.

Entanglement entropy in quantum field theory, Graduate Seminar, Stony Brook University, September 2022.

S-matrix bootstrap and dispersion relations, Graduate Seminar, Stony Brook University, February 2021.

JT gravity, Schwarzian, and wormholes, Graduate Seminar, Stony Brook University, February 2020.

A bound on quantum chaos, Graduate Seminar, Stony Brook University, September 2019.

Calabi–Yau compactification, moduli fixing, and KKLT, Graduate Seminar, Stony Brook University, May 2019.

TEACHING AND
MENTORSHIP

University of Texas at Austin

Mentorship of graduate students Harita P. Balaji and Vaishnavi Patil, August 2025–present.

Stony Brook University

Graduate-student peer mentorship program, August 2020–July 2021.

Teaching Assistant, graduate Quantum Mechanics I–II, August 2019–May 2020.

Teaching Assistant, undergraduate Electricity and Magnetism laboratory, August 2018–May 2019.

IISER Bhopal

Mentorship program teaching students from rural and underprivileged backgrounds, August 2014–May 2017.

CONFERENCE
PARTICIPATION

South-west string conference (2026); It from Qubit (2023); Strings (2021); Celestial Holography (2022); Island Hopping 2020: From Wormholes to Averages; Simons Center Summer Workshops (2019, 2021, 2022); Celestial Holography meetings (2024, 2025, 2026).