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Education

Ph.D. in Physics	Georgia Institute of Technology	2017–2023
M.Sc. (Hons.) in Physics	Birla Institute of Technology-Pilani	2011–2016
B.E. (Hons.) in Computer Science	Birla Institute of Technology-Pilani	2011–2016

Employment History

Post-Doc Fellow	Indiana University, Bloomington	2025–
Post-Doc Fellow	Technion-Israel Institute of Technology	2023–2024
Associate Engineer	Qualcomm India Pvt. Ltd.	2016–2017

Research Interests

Planetary dynamics; exoplanets; solar system; compact object dynamics; gravitational wave progenitors; astrophysics theory and computation.

Awards

Junior Research Fellowship (declined)	Council of Scientific and Industrial Research, India	2016
Summer Research Fellowship	Indian Academy of Sciences	2014

Teaching

- Teaching Assistant for Classical Mechanics I (graduate level), Intro Physics I (undergraduate level), Intro Physics II (undergraduate level).

Mentoring

- Undergraduate Students
  - Rafael Diaz, Indiana University, 2026.
  - Ariel Smyrichinsky, Indiana University, 2025.
  - Yurou Liu, Yale University, 2025.
  - Dennis Dong, Georgia Tech, 2019; now a graduate student at Stanford.
  - Jingyu Zhang, Agnes Scott College, 2019; now a graduate student at Michigan State.

Professional Service

- Member of the Scientific Organizing Committee of the 56th Annual Meeting of DDA.
- Referee for *MNRAS*; *ApJ*; *ApJ Letters*; *SciPost Physics*.

Outreach

- Public talk at Atlanta Journal Club, Atlanta, Georgia.
- Public talk at Alpharetta Library, Fulton County, Atlanta, Georgia.
- Organized physics quizzes for the general public at BITS-Pilani, Hyderabad Campus.

Publications

Full publication list: NASA ADS publication library.

In Preparation

2. Journal Article: Nick Michaels, **Bhaskar H.G.**, Agustín Herón, and Cristobal Petrovich. *Eccentric and spin–orbit aligned warm Jupiters from unstable resonant planet pairs.*

1. Journal Article: **Bhaskar H.G.** and Gongjie Li. *Effects of Galactic tide on the formation of hot Jupiters.*

Under Review

3. Journal Article: Yurou Liu, **Bhaskar H.G.**, Xian-Yu Wang, and Cristobal Petrovich. *High-Eccentricity Tidal Migration Driven by Secular Chaos in Wide-Binary Systems.* Submitted to AAS journals. [arXiv]

2. Journal Article: Brandon Radzom, Songhu Wang, Bonan Pu, **Bhaskar H.G.**, and Malena Rice. *Hot Jupiters' Isolation Is Not Unique to High-Eccentricity Tidal Migration.* Submitted to AAS journals. [arXiv]

1. Journal Article: Ryan LoRusso, Cristobal Petrovich, and **Bhaskar H.G.**. *Planetesimal-Driven Instabilities in Resonant Chains of Cold Neptunes and Their Dynamical Outcomes.* Submitted to AAS journals. [arXiv]

Accepted for publication

2. Journal Article: **Bhaskar H.G.**, Cristobal Petrovich, and Diego J. Muñoz. *Secularly-driven high-eccentricity migration predicts an anti-correlation between period and stellar obliquity.* Accepted for publication in ApJ Letters. [ADS]

1. Journal Article: Cristobal Petrovich and **Bhaskar H.G.**. *Thermally Regulated Viscoelastic Tidal Migration of Eccentric Planets.* [arXiv]

Published Journal Articles

13. Journal Article: Juan I. Espinoza-Retamal, **Bhaskar H.G.** et al. *POSEIDON II: The Anti-Aligned Orbit of the Warm Neptune TOI-1710 A b.* Accepted for publication in *ApJ Letters.* [ADS]

12. Journal Article: Rohan Ch. Das et al., including **Bhaskar H.G.**. *TOI-7154b: A Close-in Massive Brown Dwarf in an Eccentric Orbit.* Accepted for publication in *The Astronomical Journal.* [ADS]

11. Journal Article: Juan I. Espinoza-Retamal et al., including **Bhaskar H.G.**. *POSEIDON I: The Dynamical Origins of Transiting Neptunes.* Accepted for publication in *The Astronomical Journal.* [ADS]

10. Journal Article: Juan I. Espinoza-Retamal et al., including **Bhaskar H.G.**. *A Cold and Super-Puffy Planet on a Polar Orbit. The Astrophysical Journal Letters*, 996:L13, January 2026. [ADS]

9. Journal Article: Emma Dugan, Xian-Yu Wang, Agustin Heron, **Bhaskar H.G.**, Malena Rice, Cristobal Petrovich, and Songhu Wang. *Early Evidence for Polar Orbits of Sub-Saturns Around Hot Stars. The Astrophysical Journal*, 994:L23, November 2025. [ADS]

8. Journal Article: **Bhaskar H.G.** and Hagai Perets. *Properties of Free Floating Planets Ejected through Planet-Planet Scattering. The Astrophysical Journal*, 991:132, September 2025. [ADS]

7. Journal Article: Peter Lott, Christian Faulhaber, Joshua Brandt, Gongjie Li, **Bhaskar H.G.**, and Laura Cadonati. *Scattering of stellar-mass black holes and gravitational wave bremsstrahlung radiation in AGN disks. The Astrophysical Journal*, 990:210, September 2025. [ADS]

6. Journal Article: S. Baliwal et al., including **Bhaskar H.G.**. *TOI-6038 A b: A dense sub-Saturn in the transition regime between the Neptunian ridge and savanna. The Astronomical Journal*, 169:147, March 2025. [ADS]

5. Journal Article: **Bhaskar H.G.** and Hagai Perets. *Dynamical and Secular Stability of Mutually Inclined Planetary Systems. The Astrophysical Journal*, 973:108, October 2024. [ADS]

4. Journal Article: **Bhaskar H.G.**, Gongjie Li, and Douglas N. C. Lin. *Enhanced Black-hole mergers in AGN discs due to precession-induced resonances. The Astrophysical Journal*, 952:98, August 2023. [ADS]

3. Journal Article: G. Li, **Bhaskar H.G.**, B. Kocsis, and D. N. C. Lin. *Spin Variations of Black Hole Binaries in AGN Disks. The Astrophysical Journal*, 950:48, June 2023. [ADS]

2. Journal Article: **Bhaskar H.G.**, Gongjie Li, and Douglas N. C. Lin. *Black hole mergers through evection resonances. The Astrophysical Journal*, 934:141, August 2022. [ADS]

1. Journal Article: **Bhaskar H.G.**, Gongjie Li, Sam Hadden, Matthew J. Payne, and Matthew J. Holman. *Mildly hierarchical triple dynamics and applications to the outer solar system. The Astronomical Journal*, 161:48, January 2021. [ADS]

Published Book Chapters

2. Book chapter: **Bhaskar H.G.**, Nathaniel W. H. Moore, Jiapeng Gao, Gongjie Li, and Billy Quarles. *Main-sequence systems: orbital stability around single star hosts. Exoplanets, Encyclopedia of Astrophysics*, 1st Edition, Editor-in-Chief: Ilya Mandel, Section Editor: Dimitri Veras, Elsevier. 2024. [ADS]

1. Book chapter: Billy Quarles, **Bhaskar H.G.**, and Gongjie Li. *Main-sequence systems: orbital stability in stellar binaries. Exoplanets, Encyclopedia of Astrophysics*, 1st Edition, Editor-in-Chief: Ilya Mandel, Section Editor: Dimitri Veras, Elsevier. 2024. [ADS]

Presentations

17. **Bhaskar H.G.**, Cristobal Petrovich, Diego J. Muñoz. *Secularly-driven high-eccentricity migration predicts an anti-correlation between period and stellar obliquity*, Great Lakes Exoplanet Area Meeting, Madison, Wisconsin, USA, Nov. 2025.

16. **Bhaskar H.G.**, Cristobal Petrovich, Diego J. Muñoz. *Secularly-driven high-eccentricity migration predicts an anti-correlation between period and stellar obliquity*, Annual Meeting of the DDA, Atlanta, USA, May 2025.

15. **Bhaskar H.G.**, Hagai Perets, Gongjie Li, and Douglas Li. "Resonant and Secular Evolution of Three Body Systems", National Physical Laboratory, Sept. 2024.

14. **Bhaskar H.G.** and Li, G. "Effects of Galactic tide on the formation of hot Jupiters", Extreme Solar System V, Christchurch, NZ, March 2024.

13. **Bhaskar H.G.**, Gongjie Li, Douglas Lin, and Bence Kocsis. "Resonant and Secular Evolution of Three Body Systems", Indian Institute of Astrophysics, Sept. 2023.

12. **Bhaskar H.G.**, Gongjie Li, Douglas Lin, and Bence Kocsis. "Resonant and Secular Evolution of Three Body Systems", Indian Institute of Science, Sept. 2023.

11. **Bhaskar H.G.**, Gongjie Li, Douglas Lin, and Bence Kocsis. "Resonant and Secular Evolution of Three Body Systems", Tata Institute of Fundamental Research, Mumbai, Sept. 2023.

10. **Bhaskar H.G.**, Gongjie Li, Douglas Lin, and Bence Kocsis. "Black-hole mergers through precession-induced resonances in AGN Discs", AGN Santa Fe: Where are the Objects in AGN Disks? 2023.

9. **Bhaskar H.G.**, Gongjie Li, and Douglas Lin. "Black-hole mergers through resonant interactions in AGN disc", AAS 241st Annual Meeting, 2023.

8. **Bhaskar H.G.**, G. Li, S. Hadden, M. Payne, and M. Holman. "Mildly-Hierarchical triple dynamics and applications to the outer solar system", CEHW Seminar, Pennsylvania State University, 2022.

7. **Bhaskar H.G.**, Gongjie Li, and Douglas Lin. "Black-hole mergers through resonant interactions in AGN disc", Perets Group Meeting, Technion–Israel Institute of Technology, 2022.

6. **Bhaskar H.G.**, Gongjie Li, and Douglas Lin. "Black-hole mergers through resonant interactions in AGN disc", Theory Group meeting, Northwestern University, 2022.

5. **Bhaskar H.G.**, Gongjie Li, and Douglas Lin. "Black Hole Mergers Through Evection Resonances", AAS/Division of Dynamical Astronomy Meeting, 54, May 2022. [ADS]

4. **Bhaskar H.G.**, Gongjie Li, and Douglas Lin. Black hole mergers through evection resonances. "Black Hole Mergers Through Evection Resonances", Aspen Winter Conference, January 2022. URL: https://sites.northwestern.edu/aspengw2022/scientific-program/

3. **Bhaskar H.G.**, G. Li, S. Hadden, M. Payne, and M. Holman. "Mildly-Hierarchical Triple Dynamics and Applications to the Outer Solar System", Triple Evolution and Dynamics 3, March 2021. URL: https://sites.northwestern.edu/trendy3/scientific-program/

2. **Bhaskar H.G.**, G. Li, S. Hadden, M. Payne, and M. Holman. "Mildly-Hierarchical Triple Dynamics and Applications to the Outer Solar System", AAS/Division for Planetary Sciences Meeting Abstracts, 52, Oct. 2020. [ADS]

1. **Bhaskar H.G.**, G. Li, S. Hadden, M. Payne, and M. Holman. "Non-hierarchical Triple Dynamics and Applications to Planet Nine", AAS/Division of Dynamical Astronomy Meeting, 51:P14, Jun. 2019. [ADS]

References

1. Cristobal Petrovich, Associate Professor, Indiana University, Bloomington. Email: cpetrovi@iu.edu
2. Hagai Perets, Professor, Technion-Israel Institute of Technology. Email: hperets@physics.technion.ac.il
3. Gongjie Li, Associate Professor, Georgia Institute of Technology. Email: gongjie.li@physics.gatech.edu
4. Douglas Lin, Professor, University of California-Santa Cruz. Email: lin@ucolick.org