Dr. Goni Halevi

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Academic

Illinois Institute of Technology, Lewis College of Science and Letters

Positions

Aug. 2024- present: Assistant Teaching Professor

Center for Interdisciplinary Exploration and Research in Astrophysics

(CIERA), Northwestern University Sept. 2023-Aug. 2024: CIERA Fellow

Education

Princeton University

PhD, Astrophysical Sciences, Aug. 2023, Toward self-consistent models of high-energy transients from stellar remnants, advised by Prof. Jim Stone

University of California, Berkeley

BA, Physics & BA, Astrophysics, 2017 (with distinction in general scholarship)

Research

High-energy computational astrophysics

Interests

Transient phenomena, black holes, neutron stars, nucleosynthesis, accretion, MHD

Awards & Fellowships CIERA Postdoctoral Fellowship, Northwestern University, 2023-2026

Vera Rubin Postdoctoral Fellowship, University of California, Santa Cruz, 2023-2024 Graduate Student Fellowship (Math/Physics), Prison Teaching Initiative, 2020-23

(Inaugural) Annual Equity Prize, Princeton Astrophysical Sciences, 2022 Graduate Research Fellowship, National Science Foundation, 2019-22

Outstanding Graduate Student Instructor, UC Berkeley, 2017

Commencement Speaker (\$1000), UC Berkeley Astronomy Dept., 2017 Google Lick Pre-doctoral Fellowship, Google/Lick Observatory, 2016–17 Daniel Edward Wark Award (\$5000), UC Berkeley Astronomy Dept., 2015

Teaching

Northwestern University- Physics & Astronomy (Grad Courses)

Invited Guest Lecturer, "Advanced Topics: Supermassive Black Holes," 2024 Princeton University - Astrophysical Sciences (Undergraduate Courses)

Assistant in Instruction & Invited Guest Lecturer, "Black Holes," 2023

Assistant in Instruction, "Topics in Modern Astronomy," 2022

Assistant in Instruction, "Life in The Universe," 2021

Assistant in Instruction, "Cosmology," 2020 Assistant in Instruction, "The Universe," 2019

Prison Teaching Initiative (Raritan Valley Community College Courses)

Head instructor, "Beginning Mathematics," Edna Mahan Correctional Facility, 2023 Head instructor, "Introductory Physics (with Lab)," East Jersey State Prison, 2020

Head instructor, "Elementary Algebra," East Jersey State Prison, 2019 Instructor, "Astronomy (with lab)," East Jersey State Prison, 2018

UC Berkeley- Astronomy (Undergraduate Courses)

Student Instructor, "Introduction to Astrophysics II," 2016 & 2017 Student Instructor, "Introduction to General Astronomy," 2015 & 2016

Cambridge Center for International Research (Advanced High School):

Teaching Assistant, "The Astrophysics of High-Density Objects," 2023

Warrior-Scholars Project (Research Focused, College Prep):

Research Project Leader, "Modeling and Detecting Exoplanets," 2022

Mentorship Formal research advising

Ayanna Mann (Howard undergrad, in progress)

Pavani Jairam (Northwestern grad student, in progress) Belinda Wu (Princeton undergrad, resulted in publication)

Formal non-research mentorship

Northwestern (1 grad student), Princeton (3 undergrads, 2 grad students)

+ 10-20 informal mentoring relationships

Service

Admissions Committee, REACH Program, CIERA, Northwestern University, 2024 Admissions Committee, REU Program, CIERA, Northwestern University, 2024

Mentorship Action Team, CIERA, Northwestern University, 2023–Mentorship Committee, Astrophysical Sciences, Princeton, 2021-22

LGBTQ+ Panel, APS Conference for Undergraduate Women in Physics (CUWiP), Temple University, 2020

Executive Board, Princeton University Women in Physics, 2019-21

Peer Reviewer, Monthly Notices of the Royal Astronomical Society, 2019–

Graduate Student Mentor, Científico Latino, 2019 Peer Reviewer, The Astrophysical Journal, 2018–

Co-founder, AstroJustice Discussion Group, Dept. of Astrophysical Sciences, Princeton University, 2018

Co-founder, Graduate Student Representative, Climate Committee for Equity and Inclusion, Dept. of Astrophysical Sciences, Princeton University, 2018-21

Co-founder, Facilitator, AstroJustice Discussion Group, UC Berkeley, 2015-17
Undergraduate Coordinator, Society for Women in the Physical Sciences, UC Berkeley, 2015-17

Co-founder, Organizing Committee, Undergraduate Astronomy Society, UC Berkeley, 2015-17

Vice President, Society of Physics Students, UC Berkeley, 2015-16 Outreach Coordinator, Society of Physics Students, UC Berkeley, 2014-15

Outreach

Volunteer, Astronomy Conversations, Adler Planetarium, Chicago, 2024–Astronomy on Tap Speaker, Chicago, IL, 2023

Public Observing Volunteer, Peyton Observatory, 2018-19

Volunteer Astronomer, Public Programs Series, Lick Observatory, 2015-19

Selected

*= invited

Colloquiua & seminars

Presentations

- * TAPIR Seminar, CalTech, Pasadena, CA, June 2024
- * FLASH Seminar, UC Santa Cruz, CA, Nov. 2023
- * GRAPPA Colloquium, University of Amsterdam, NL, May 2023
- * THEA seminar, Columbia, NYC, Dec. 2022
- * CIERA Theory Group Meeting, Northwestern, IL, Oct. 2022
- *High-Energy Astro Journal Club, U Chicago, IL, Apr. 2022
- *Physics Colloquium, Franklin and Marshall College, PA, Apr. 2022
- *Astronomy Seminar, UW Madison (remote), Nov. 2020

Workshops & conferences

- * Turbulence in the Universe, KITP, UC Santa Barbara, CA, Feb. 2024
- *Modeling plasmas around black holes, Lorentz Center, Leiden, NL, Sept. 2023

Microphysics in Computational Relativistic Astrophysics, ECT*, Trento, IT, Sept. 2023

*Multi-messenger astro in the gravitational wave era, YITP, Kyoto, JP, Oct. 2019

Publications

17 refereed co-authored publications (with 3 more in review), including 3 first-author publications, 1 of which is co-authored with an advisee (h-index=10)

on ADS on arXiv on ORCID