CURRICULUM VITAE

Smadar Naoz *January 2025*

CONTACT INFORMATION

University of California Los Angeles,
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RESEARCH INTERESTS

Dynamics of multi-object systems, including planetary, stellar, and black hole systems, globular clusters, spiral structures, compact objects, etc. Gravitational wave merger, cosmology, structure formation in the early Universe, reionization, and 21cm fluctuations.

EDUCATION

Tel Aviv University, Tel Aviv, Israel
Ph.D. in Physics, January 2010
Hebrew University of Jerusalem, Jerusalem, Israel
M.S. in Physics, Magna Cum Laude, 2004
B.S. in Physics 2002

POSITIONS

University of California, Los Angeles
Professor of Physics & Astronomy *since July 2023*
Howard & Astrid Preston Chair in Astrophysics *since July 2023*
Associate professor of Physics & Astronomy *2019 – 2023*
Howard & Astrid Preston Term Chair in Astrophysics *since 2018 - 2023*
Assistant professor of Physics & Astronomy *2014-2019*

Harvard Smithsonian CfA, Institute for Theory and Computation
Einstein Fellow, *September 2012 – June 2014*
ITC Fellow, *September 2011 – August 2012*

Northwestern University, CIERA
CIERA fellow and IAU Gruber fellow, *September 2010 – August 2011*
CIERA fellow and Postdoctoral associate in theoretical astrophysics, *January 2010 – August 2010*

SCHOLARSHIPS HONORS AND AWARDS

UCLA's Undergraduate Research Week Faculty Mentor Award, 2024

Fellow of the American American Society, 2024

Fellow of the American Physical Society, 2022

Scialog fellow, and accepted proposal, Signatures of Life in the Universe, 2020/2021⋆
⋆ *Conference postponed to 2021 due to COVID-19*

Helen B. Warner Prize, awarded by the American Astronomical Society, 2020

Career Commitment to Diversity, Equity and Inclusion Award, given by UCLA Academic Senate 2019. For other diversity awards, see §DEI.

Howard & Astrid Preston Term Chair in Astrophysics, UCLA department of Physics and Astronomy , 2018

Hellman Fellows Award, awarded by Hellman Fellows Program, aimed to support the research of

promising Assistant Professors who show capacity for great distinction in their research, June 2017

Multiple departmental teaching awards 2015-2023, see §Teaching, for details

Sloan Research Fellowships awarded by the Alfred P. Sloan Foundation, 2015

Annie Jump Cannon Prize awarded by the American Astronomical Society, 2015

The pH Lecture for the Observatory's outstanding young scientists awarded by the Hertelendy family of California and the CfA, 2014

Einstein Fellowship, awarded by NASA, Sept. 2012

ITC-Harvard prize Fellowship awarded by Harvard University – Smithsonian CfA and the Institute for Theory and Computation (ITC) Sept. 2011

The Gruber Foundation Fellowship, awarded by the International Astronomical Union (IAU) and the Gruber Foundation, Sept. 2010 – Aug. 2011

The National Postdoctoral Award Program for Advancing Women in Science, awarded by Weizmann Institute of Science, Israel, 2009 – 2011

Dan David Prize Scholarship, awarded by the Dan David Foundation, Sept. 2009

John Bahcall Graduate Student Prize, awarded by Tel Aviv University, 2008

Ilan Ramon Award, awarded by Commercial & industrial club house, Israel, 2007

Don and Sara Marejn Scholarship Fund, Tel Aviv University, 2007

School of Physics and Astronomy award for outstanding achievements, awarded by Tel Aviv University, 2006

M.Sc Magna Cum Laude, Hebrew University of Jerusalem 2004

The Rector's Prize for excellent Master's students, awarded by Hebrew University (top 5% in the science studies), 2004

The Arnold Rosenblum Prize for outstanding achievement as a graduate student in Astrophysics, awarded by Hebrew University, 2003

Mentoring

UCLA

Current Graduate Students

Sydney Skorpen, August 2024 – present
Grant Weldon, June 2023 – present
Zeyuan Xuan, October 2021 – present
Claire Williams, August 2021 – present
Elizabeth (Liz) Holzknecht, July 2020 – present
Denyz Melchor, July 2020 – present
Isabel Angelo, October 2019 – present
Thea Faridani, October 2019 – present

Former Graduate Students

William Lake, January 2020 – Decmber 2024
Sanaea Rose, August 2017 – August 2023; Now a CIERA fellow at NU
Bao Minh Hoang, September 2016 – June 2022; Now a Orbital Trajectory Specialist at Kall Morris Inc.
Jesus Salas, April 2016 – May 2021; Now UCLA lecturer and Harvard-Westlake School faculty
Yeou Chiou, January 2017 – August 2020; Now Machine Learning Engineer at LinkedIn
Alexander P. Stephan, August 2014 – August 2020; Now an OSU Presidential fellow and Buckeye Prize Postdoctoral Fellow
Juan Pablo (JP) Gatica, Physics-Bridge program first-year mentor, 2018-2019 academic year
Kristian Barajas, Physics-Bridge program first-year mentor, 2018-2019 academic year
Mason MacDougall, August 2018 – 2019

Alec Vinson, August 2014 – October 2014

Former Postdocs

Erez Michaely September 2021 – August 2024
Santiago Torres, October 2020 – August 2023; Now a Marie Curie fellow
Brenna Mockler August–December 2022, UC Chancellor fellow; Now a Carnegie fellow.

Undergraduate Students

Lauren Harvey Summer 2023 – August 2024
Brayan Hernandez Winter 2023 – August 2024
Nicholas Inzunza Winter 2023 – August 2024
Cheyanne Shariat Fall 2022 – present
Carlos Jurado Spring 2022 – August 2024
Nitya Ravi Summer 2021 – Summer 2022
Melodie Sloneker Winter 2020 – Summer 2022
Cuc Dinh Winter 2020 –July 2021
Eric Zhang Summer 2019 – August 2021
Huiyi (Cheryl) Wang Summer 2019 – July 2021
Lingfeng Wei Cross-disciplinary Scholars in Science and Technology (CSST), UCLA summer program with China and Japan, July – August, 2018
Igor Van Der Put, June 2017 – summer 2019
Shelley Cheng, January 2017 – summer 2020
Daria Bonds CSUSM – *Cal-bridge Undergraduate Student.* September 2020 – summer 2022
Joseph Soliz, CSULB – *Cal-bridge Undergraduate Student*, September 2019 – summer 2020
Becky Flores CSUN *Cal-bridge Undergraduate Student*, September 2017 – summer 2019
Joseph Guzman, REU (summer 2016) and CSLB - *Cal-bridge Undergraduate Student* June 2015 – August 2017
Paul Denham, June 2016 – summer 2018
Isabella Goetting, November 2016 – summer 2018
Cicero-Xinyu Lu, November 2014 – August 2017
Ahmed Qureshi, January 2016 – August 2017
Bao Minh Hoang, August 2014 – August 2016
Andrew Kaiser, REU, June – August 2015
Erika Holmbeck, Post-baccalaureate Student, September 2014 – August 2015

Harvard University

Graduate Students

Cristina Popa, Aug. 2014 – 2016; Now quantitative researcher at Two Sigma Investments
Gongjie Li, Sept. 2011 -2015; Now Assistant. Prof. in Georgia Tech (since Jan. 2018)

Northwestern University

Undergraduate Students

Jean Teyssandier, May 2010 – September 2011
Ian Lizarraga, September 2010 – August 2011
Leah A. Iasaman, REU, June – August 2011
Bradley Solomon, REU, June – August 2010

FUNDING

NASA-ATP "Star Formation in the Early Universe via the Stream Velocity in the Era of JWST," (2024-2027), PI, $1.07M

NASA-XRP "The effects of core dilution on the tidal disruption of giant planets," (2023-2026), Co-I (PI B. Hansen), $400,485

NSF, "NSF-BSF: Gravitational Wave From Compact Objects at Galactic Nuclei," (2022-2025), PI, $437,486

Research Corporation for Science Advancement, Scialog"Methane from Nontraditional Abiotic Sources and Potential for False Biosignature Positives," (2021-2022) PI $55,000

NASA-ATP, "Shining Light on Supersonically Induced Gas Objects," (2020-2023) PI, $947,943

NASA-ATP, "Binary Dynamics at the Hearts of Galaxies," (2020-2023) PI, $419,742

NASA-ATP, "Debris Disk Morphology due to Stellar Encounters," (2020-2023) Co-I (PI: G. Li, Georgia Tech) - UCLA portion: $120,006

NASA-LSP, "Multi-messenger Astronomy: Forecasting LISA Events with LIGO Detections and Electromagnetic Counterparts," (2019–2021), PI $167,494

NSF, "Planets around evolved binary stars," (2018-2021), PI $409,000

Hellman Fellows Award, Sept. 2017 - July 2018, $20,000

Keck foundation (2016-2021), $1M (Collaborator Naoz's part ∼$65k, PI, A. Ghez)

Sloan Research Fellowships 2015-2017 $50,000

UCLA developmental award 2015 $5k

PI on Computing Allocations

ACCESS Discover Research Allocation, June, 2024 (estimated value $1,002.60)

ACCESS Discover Research Allocation, January, 2023 (estimated value $1,641.36)

XSEDE Research Allocation, January 2021 (estimated value $14,078.50)

XSEDE Research Allocation, April 2020, (estimated value $21,027.60)

XSEDE Research Allocation, April 2019–2020, (estimated value $12,086.74)

XSEDE Startup Allocation, April 2017, (estimated value $2,294)

UC-HiPACC - 2014 $10,000

COMMUNITY LEADERSHIP **(selected)**

Elected Chair of the Division on Dynamical Astronomy (DDA) of the American Astronomical Society (AAS) (2024-2025)

Elected Vice-Chair of the Division on Dynamical Astronomy (DDA) of the American Astronomical Society (AAS) (2023-2024)

Elected member of the Division on Dynamical Astronomy (DDA) of the American Astronomical Society (AAS), July 2018 – July 2021

Elected Committee member at large Far West Section (FWS) of the American Physical Society (APS) March 2022 –

Member of the nominating committee of the Far West Section (FWS) of the American Physical Society (APS) Fall 2024

Chair of the admission committee, 2023, 2024

Chair of the recruitment committee Fall 2019 – Spring 2023

Member of the executive committee of the Mani L. Bhaumik Institute for Theoretical Physics at

UCLA, Summer 2016 – present

Member of the leadership committee of the Galactic Center Group, Fall 2014 – present

Chair of NASA Astrophysics Theory Program (ATP), Fall 2021

Chair and founder of Physics and Astronomy diversity committee, UCLA, Fall 2020 – August 2024

Chair and founder of Astro-diversity committee, UCLA, Spring 2016 – Fall 2020

Chair and founder of Physics-diversity committee, UCLA, Jan. 2017 – Fall 2020 *(leading the formation of APS - bridge program)*

Multiple conferances organizations, see §*Conference Organizing*

Steering committee member at the Cal-bridge program (Summer 2015 – Dec. 2016)

SERVICE
(Leadership italicized)

In the community:

Referee for the American Astronomical Society Journal, Monthly Notices of the Royal Astronomical Society, Journal of Cosmology and Astroparticle Physics, Astronomy & Astrophysics (A&A), Celestial Mechanics, *Nature*, *Science*, *Physics Review Letters, PRL* and *PNAS*.

Chair of the American Astronomical Society (AAS) Division on Dynamical Astronomy (DDA) (2024-2025)

Vice-Chair of the American Astronomical Society (AAS) Division on Dynamical Astronomy (DDA) (2023-2024)

An elected Committee member at large in the American Physical Society (APS) Far West Section March 2022 – 2025

An elected member of the Division Committee in the American Astronomical Society (AAS) Division on Dynamical Astronomy (DDA), July 2018 – July 2021

The Heising-Simons Foundation 51 Pegasi b fellowship external reviewer (winter 2020)

NASA review panels: ATP review panel, Fall 2013, Fall 2016, Fall 2021 (**Chair**); HST review panel, Spring 2016; NASA TCAN review panel, Summer 2020; NASA LSP review panel, Spring 2021; Proposal reviewer for the NASA ATP Fall 2011; NASA emerging world Summer 2018

National Science Foundation (NSF) review panel, Spring 2013, Winter 2018

Keck Telescope TAC member, 2022 – 2024

Steering committee member (Summer 2015 – Dec. 2016) and a mentor at the Cal-bridge program 2015–2024

BSF: United States - Israel Binational Science Foundation reviewer, winter 2017

UK-RI Future Leaders Fellowships, Summer 2020

The Netherlands Organisation for Scientific Research, reviewer, 2016, 2018, 2020

* for conference organizations, see below.

Editorial roles:

Science Editor, The American Astronomical Society's The Astrophysical Journals, January 2024 – present

Invited Scientific Editor for *Nature* Scientific Reports (online journal in all areas of natural sciences by the Nature Publishing Group), July 2014 – 2020

In UCLA:

Chair of Physics and Astronomy diversity committee, UCLA, Fall 2020 – August 2024

Chair of Astro-diversity committee, UCLA, Spring 2016 – Fall 2020

Chair of Physics-diversity committee, UCLA, Jan. 2017 – Fall 2020 (leading the formation of APS - bridge program)

Member of the Physical Sciences Diversity Committee, UCLA, Summer 2016 – August 2024

Member of the Senate Committee on Diversity, Equity, and Inclusion (CODEI), Fall 2020 – August 2023

Member of UCLA appointment committee 2017 – present

Admission committee member, Fall 2022 (DEI officer in the admission committee Fall 2019 – 2021)

Chair of the admission committee, 2023, 2024

Chair of the recruitment committee Fall 2019 – Spring 2023

UCLA Hellman Fellows panelist (summer 2020,2023), URSP reviewer (2019,2022), UC presidential fellowship reviewer (winter 2019, 2022), Eugene V. Cota-Robles Fellowship reviewer (winter 2023)

Search committees: EPSS Slichter chair search committee (2016-2017), Astronomy search committee (2018), Plasma search committee (2019-20), Experimental physics/ mentoring search (2020-2021)

Physics Comprehensive exam reform committee 2019/20, and 2022/23

Physics Bridge admission committee 2018, 2019, 2020, 2021, 2023

UCLA's Division of Astronomy and Astrophysics **grad adviser representative** and coordinator of Graduate students and postdocs mentoring program, Sept. 2015 – 2018

The organizer of the Bhaumik Luncheon seminar, 2017–2019

Member of the executive committee of the Mani L. Bhaumik Institute for Theoretical Physics at UCLA, Summer 2016 – present

Member of the leadership committee of the Galactic Center Group, Fall 2014 – present

UCLA's Physics and Astronomy department graduate affairs and academic affairs committees, Sept. 2016 – 2018

Member of UCLA's Astronomy Colloquium Committee, July 2014 – present (*chair* since 2018)

In the ITC/CfA - Harvard:

ITC Postdoctoral Fellowship Selection Committee, Fall 2012, 2013

Member of the ITC Seminar and Colloquium and visitor committee, 2012- 2014 (chair 2013, 2014)

Co-Organizer of the ITC-Pizza lunch about Star formation and stellar dynamics, spring 2012

Member of the ITC postdoctoral fellowship selection committee, 2013, 2014

Organizer of the *Astronomy for Everyone* workshop for high schoolers with dyslexia, ADHD, and autism spectrum disorders, CfA April 2014

In CIERA - Northwestern:

Organizer of the CIERA (Northwestern) theory group meetings 2010–2011

Co-Organizer of the CIERA (Northwestern) Secular Dynamics Reading Group 2010

In Tel-Aviv University:

Organizer and founder of the Tel Aviv University Astrophysics Reading Club (reviewing important

papers in the literature), 2008 - 2009

Organizer of the Tel Aviv University student seminar, 2007–2009

Tel-Aviv University Astronomy Club, outreach endeavor, 2006–2011

"BASHAAR club for youth": giving public lectures in schools and high schools (involving lectures focused on engaging women and minorities in science), 2006 – 2009

CONFERENCE ORGANIZING

Co-organizer of "Frontiers of Astrophysical Black Holes," Sexton Center for Astrophysics, Italy, planned March 2025

SOC for FWS annual meetings, 2023,2024

Organizer and SOC chair, The 55th Annual Meeting - Toronto, Ontario, Canada, May 12-17 in Toronto, Ontario, Canada

Co-organizer of "Theories of the three-body system," conference at Jerusalem, Israel, Oct. 2023

SOC for "MODEST-23," Evanston, IL, August, 2023

SOC for "Galactic Center Workshop 2023," Granada, Spain, April 2023

SOC for "Astrophysics in the Next Decade: From the First Stars to Intelligent Life A meeting in celebration of Avi Loeb's 60th birthday," June 2022 (in person)

Co-organizer of 2022 Aspen winter conference, "Dynamical Formation of Gravitational Wave Sources," January, 2022 (in person)

SOC for the Trendy 3 conference on triples, March 2021

SOC for the Division on Dynamical Astronomy *51 meeting, August 2020; 52 meeting, May 2021*

SOC for Extreme solar system - *III Hawaii, Nov-Dec 2015, IV Iceland, August 2019, V New Zealand, March 2023*

SOC for MorrisFest, September, 2019

PI of the 2016 Aspen winter conference "Dynamics and accretion at the Galactic Center", Feb. 2016

Founder and Organizer of UCLA AstroBash - The Division of Astronomy and Astrophysics show and tell 2015-2022

SOC ExSoCal, September, CA 2017

LOC and SOC of the Conference for Undergraduate Women in Physics (CUWiP), UCLA, January 2017

LISA Symposium International Advisory Board, Chicago, August 2018

Co-organizer of the "Inclusive Astronomy Meeting", June 2015, Vanderbilt University, Nashville, Tennessee (see https://vanderbilt.irisregistration.com/Home/Site?code=InclusiveAstronomy2015)

Co-Organizer and SOC of the CIERA (Northwestern) Inaugural conference, "The Future of Astronomy: Fellows at the Frontiers of Science," Sept. 2011

Co-founder and co-organizer of the Israeli astrophysics and cosmology students conference series (AsCoS): AsCoS I (2008, Weizmann Institute); AsCoS II (2009, Tel Aviv university)

TEACHING

Multiple outstanding teaching awards:

2023 UCLA Departmental Outstanding Teaching Award for Fall 2023, Phys-105A, analytical mechanics, undergrads upper division code class

2022 UCLA Departmental Outstanding Teaching Award for Fall 2022, Astro-270, Astro-dynamics class for graduate students

2021 UCLA Departmental Outstanding Teaching Award for Winter - Phys-105A, analytical me-

chanics, undergrads upper division code class

2020 UCLA Departmental Outstanding Teaching Award for Winter - Phys-105A, analytical mechanics, undergrads upper division code class

2019 UCLA Departmental Outstanding Teaching Award for Winter - Phys-105A, analytical mechanics, undergrads upper division code class

2016 UCLA Departmental Outstanding Teaching Award for Winter - Phys-105A, analytical mechanics, undergrads upper division code class

2015-2016 UCLA Departmental **teacher of the year award**, for Astro-273, Phys-105A, Phys-1B and novel contribution to student mentoring

2015 UCLA Departmental Outstanding Teaching Award for Winter - Astro-286, exoplanets course for graduate students

Courses:

Astro-270 Astrophysics Dynamics, Core graduate level course, UCLA (Fall 2016, Fall 2018, Fall 2020, Fall 2022)

Astro-273/280 Diffuse Matter in Space/Fluid dynamics in Astrophysics, Core graduate level course UCLA (Fall 2015, 2017, 2019, 2021, 2023)

Physics 105A Analytical mechanics, upper-division undergraduate level core course, UCLA (Winter 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024)

Physics 105B Analytical mechanics, upper-division undergraduate level core course, UCLA (Spring 2022, 2023)

Astro 5, Life in the Universe, General education course, (Winter 2025)

Physics 1B, electromagnetism and wave, core lower-division undergraduate level course, UCLA (Spring 2015,2016)

Astro-286 Exoplanets, Graduate elective course, UCLA (Winter 2015, Spring 2021)

Guest Lecture, Exoplanet Graduate course, Harvard University (Spring 2013)

Guest Lecture, EPS 351 Graduate course, Northwestern University (Spring 2011)

Guest Lecture, GR Graduate course, Northwestern University (Spring 2011)

Teaching assistant, undergraduate astrophysics course at the Tel Aviv University in the (Spring 2007)

Teaching assistant at the Hebrew University of Jerusalem responsible for the CAPA system (computerized exercise system), 2002 – 2004

Teaching assistant at the Hebrew University of Jerusalem (during my B.Sc), involving grading exercises and tutoring in the physics club, 2001

Lecturer (E&M course in the Fall semester and calculus in the Pre-academic summer program) and teaching assistant in physics and mathematics at the Jerusalem College of Engineering (I received one of the highest ratings by students at that college) 2000 – 2002

Teaching assistant in mathematics, PERAH Scholarship program, at the Hebrew University of Jerusalem, 1999-2000

Outreach, Diversity, Equity and Inclusion (Selected)

Career Commitment to Diversity, Equity and Inclusion Award, given by UCLA Academic Senate *2019*.

UCLA Department of Physics and Astronomy contribution for diversity award, given

as recognition for efforts to diversity and inclusion, *2017*, *2018*

Chair (and initiator) of Physics and Astronomy diversity committee, UCLA, a consolidation of the Astro-DEI committee (Spring 2016 – Fall 2020) and Physics-DEI committee (Jan. 2017 – Fall 2020), – 2024, *(notably: leading the formation of APS - bridge program - First cohort began on Fall 2018)*

Member of the Physical Sciences Diversity Committee, UCLA, Summer 2016 – August 2024

Member of the Senate Committee on Diversity, Equity, and Inclusion, Fall 2020 – August 2023

Steering committee member (Summer 2015 – Dec. 2016) and a mentor at the Cal-bridge program 2015 – 2024
(see http://www.cpp.edu/∼sci/physics-astronomy/research/cal-bridge.shtml)

Faculty advisor for Women in STEM (WiSTEM): Breaking Barriers at UCLA, since Oct. 2021

DEI Talks/Seminars/Contributions/Organizations and Panels Participations

An organizer of multiple events that advocate for diversity, equity, and inclusion. These events range from departmental events (such as anxiety in Graduate School workshop, APS climate visit, Sherard Robbins from Visceral Change day visit about DEI efforts in hiring and admission, organizing mentoring workshop with Shanna Shaked, leading the monthly DiversiTea community discussion - in collaboration with Sanaea Rose - and the 11 weeks summer DiversiTea journal club - in collaboration with Alice Shapley - etc.) as well as physical division and university-wide and physical division-wide events such as, Mahzarin Banaji (Harvard) implicit bias talk, and picture a scientist movie screening and discussion.

Astronomy on Tap, outreach, poplar talk, Pasadena, Spring 2022

Mentoring Practices (for mentors and mentees) workshop presentation, UCLA, 2018 (with Shanna Shaked), 2020, 2021, 2023, 2024

DEI pannelist, Northwstren University, physics and astronomy department, August, 2023, during MODEST conferance

Exploring Your Universe (EYU), UCLA's annual outreach event, 2019, 2020, 2021 (booth), 2014, 2022, 2023, 2024 (talks)

Transfer students in UCLA physical science discussion, Academic Advancement Program (AAP), TSP, September 2023

Summer BRIDGE Talk, UCLA physical science bridge, September 2023

DEI panel, Northwestern, Evanston, IL, August 2023

Women in STEM Seminars, Scarsdale High School, NYC, August 2022 (virtual)

Co-organizer of California's fUtuRe scIence lEaders (CURIE), PHysics & AStronomy for EveRyone (PHASOR) event for high school kids, May, 2022

Aspen Science Center Physics Cafe Presenter, January 2022

Astronomy on Tap, outreach, poplar talk, Zoom/Youtube Fall 2021

PEERS talk (UCLA's largest academic support program for STEM majors from underrepresented and underserved backgrounds), April 2021

ComSciCon-LA 2021 Workshop panelist on DEI efforts, April 2021

Visceral Change Women's Leadership Panel, March, 2021

UCLA Undergraduate Research Fellows Program (URFP) panel, February, 2021

Lamat talk at Meetings of the Minds seminar series, UCSC - virtual talk, July 2020

(Lamant program is aimed at community college students in CA)

UCLA's Career Center, Academic Faculty Panel, September 2019

Plenary talk at the Conference for Undergraduate Women in Physics (CUWiP), January 2019

Panelist in the Conference for Undergraduate Women in Physics (CUWiP), January 2017, 2018, 2021

LOC of the Conference for Undergraduate Women in Physics (CUWiP), UCLA, January 2017

Co-organizer of the "Inclusive Astronomy Meeting", June 2015, Vanderbilt University, Nashville, Tennessee (see https://vanderbilt.irisregistration.com/Home/Site?code=InclusiveAstronomy2015)

Guest lecture in *Exploring Your Universe!* UCLA's outreach program Nov. 2014, panel and booths: 2019, 2020, 2021

Organizer of the *Astronomy for Everyone* workshop for high schoolers with dyslexia, ADHD, and autism spectrum disorders, CfA April 2014

CfA Career workshops for young people who think differently: summer workshop for young people with dyslexia, ADHD, and autism spectrum disorders, CfA, June 2013

Tel Aviv University Astronomy Club. Involving general public activities as well as writing and expending the "Astropedia" - the Hebrew encyclopedia of space science, 2006–2011 (I continued to be an active member well within my postdoc years)

"BASHAAR club for youth": giving public lectures in schools and high schools (involving lectures focused on engaging woman and minorities in science), 2006 – 2009

An instructor in a physics lab at the "Belamonte science center for Youth" at the Hebrew University of Jerusalem, 2000 – 2001

An instructor (and activities developer) at the Bloomfield science museum in Jerusalem (which includes engaging woman and minority in science, among the regular activities), 1999 – 2002

An instructor in an after-school Astronomical curriculum activity for kids in grades 1-3 at the "Ramat-Sharet" *community center,* 1999-2000

PERAH Scholarship program for adults to complete high school diploma at the Hebrew University of Jerusalem 1999-2000

Invited talks and presentations (selected)

Astronomy Colloquium: University of Toronto, Toronto, CA, December 2024

Strong Gravity seminar: the Perimeter Institute, Waterloo, CA, December 2024

Astronomy Colloquium: Northwestern University, Evanston, IL, November 2024

Astronomy Colloquium: MIT Kavli Institute, Cambridge, MA, October 2024

Physics & Astronomy colloquium: Vanderbilt University, Nashville, TN, September 2024

Invited lecturer in a summer school in the Niels Bohr Institute Academy (NBIA) Summer School, Copenhagen, Denmark, August 2024

CIFAR, Gravity & the Extreme Universe, Whitehorse, Yukon, Canada, June 2024

The ITC conference To Our Cosmic Horizon and Beyond, Harvard, Cambridge, MA, May 2024

Physics & Astronomy colloquium: California State University, Long Beach, Long Beach, CA, April 2024

Physics & Astronomy colloquium: Stony Brook University, Stony Brook, NY, April 2024

Astronomy & Astronomy Colloquium: University of British Columbia, Vancouver, B.C., Canada, January 2024

Physics colloquium: University of Tokyo, Tokyo, Japan, December 2023

RESCEU-NBIA workshop on gravitational-wave sources, Tokyo, Japan, December 2023

Astronomy Colloquium: Indiana University, Bloomington, November 2023

Astronomy Colloquium: University of Washington, Washington, November 2023

Physics Colloquium: University of San Francisco, Virtual, October 2023

"MODEST-23, the 21st workshop on Modeling and Observing DEnse STellar systems," Northwestern University, Evanston, IL, Aug-Sept. 2023

"Black Hole Initiative 2023 Annual Conference," Cambridge, MA, May 2023

"eXtreme Black Holes," Aspen, March 2023

Astronomy Colloquium: Georgia Tech, Atlanta, Georgia, January 2023

"Unsolved Problems in Astrophysics and Cosmology, 2022," Jerusalem, Israel, December 2022 (invited talk)

"2022 MIAPP program "Star-Forming Clumps and Clustered Starbursts across Cosmic Time," Garching, Germany, October 2022 (Wrap-up talk)

"2020 GMT Community Science Meeting - Black Holes at All Scales," Tucson, AZ, September 2022 (**invited review talk**)

"Mani-Fest 2022: Directions in Theoretical Physics," UCLA, California, June 2022 (invited talk)

"Astrophysics in the Next Decade: From the First Stars to Intelligent Life A meeting in celebration of Avi Loeb's 60th birthday," Martha's Vineyard Edgartown, Massachusetts, June 2022 (invited talk)

Intermediate-mass black holes, New Science from Stellar Evolution to Cosmology, Puerto Rico, May 2022 (invited talk)

Astronomy Colloquium: McGill Space Institute, McGill University, Montreal, Canada, virtual talk, September 2021

RESCEU summer school 2021 (virtual meeting), Tokyo, Japan, August 2021 (invited lecturer)

Niels Bohr Institute Summer school on Gravitational Waves, Copenhagen, Denmark, August 2021 (invited lecturer, virtually)

Astronomy Colloquium: The Universidad de Concepción, Chile, virtual talk, July 2021

Division on Dynamical Astronomy 52 meeting - American Astronomical Society, Virtual meeting, May 2021 (SOC)

Physics Colloquium Max Planck Institute for Gravitational Physics AEI, (Albert Einstein Institute, AEI), Germany, virtual talk, May 2021

Astronomy Colloquium: University of Hong Kong, virtual talk, April 2021

TRiple EvolutioN and DYnamics (TRENDY) 3, Virtual meeting, March 2021, (**plenary talk**)

Georgia Tech, virtual talk, March 2021

American Astronomical Society 237, Virtual meeting, January 2021, (**Helen B. Warner Award plenary talk**)

Astrophysics Colloquium Stanford/KIPAC virtual talk, November, 2020

American Physical Society, The Far West Section, Virtual meeting, October 2020 (**invited plenary talk**)

Exploring Supermassive Black Holes, Virtual meeting (Princeton IAS originally), October 2020 (invited talk)

Astronomy Colloquium: MIT, virtual talk, October 2020

KITP program "Probing Effective Field Theories of Gravity in Strong Fields and Cosmology," Virtual meeting, September 2020 (invited panelist in Mixing scales and combining observation session)

Division on Dynamical Astronomy 51 meeting - American Astronomical Society, Virtual meeting, August 2020 (SOC)

Lamat talk at Meetings of the Minds seminar series, UCSC - virtual talk, July 2020

Physics colloquium USC, Los Angeles, California, September, 2019

Extreme Solar Systems IV Reykjavik, Iceland, August 2019 (invited talk)

Advancing Theoretical Astrophysics summer school, Amsterdam, The Netherlands, July 2019 (invited teacher)

Astronomy Colloquium: Caltech, Pasadena, California, May 2019

Planet-Star Connections in the Era of TESS and Gaia, KITP, Santa Barbara, May 2019 (invited talk)

The Conference for Undergraduate Women in Physics (CUWiP), January 2019 (**Plenary talk**)

Astronomy Colloquium: University of Washington, Washington, January 2019

Astronomy Colloquium: Caltech, Pasadena, California, December 2018

Astronomy Colloquium: University of Colorado, Boulder, Colorado, December 2018

Astronomy Colloquium: University of Texas, Austin, Texas, October 2018

Astronomy Colloquium: New York University, Astronomy colloquium, NY, September 2018

Triple Evolution and Dynamics, Lorentz Center, Leiden, Netherlands, September 2018 (invited opening talk)

Open Questions in Astrophysics, Niels Bohr Institute, Copenhagen, Denmark, July 2018 (invited talk)

Gravitational Wave Astrophysics, Sackler Conference, Harvard, ITC, May 2018 (invited talk)

Astronomy Colloquium: University of California Riverside, Physics colloquium, CA, May 2018

Astronomy Colloquium: University of California Santa Barbara, Astrophysics colloquium, CA, April 2018

Astronomy Colloquium: University of Florida, Gainesville, Astrophysics colloquium, FL, April 2018

Astronomy Colloquium: Yale University, New Haven, Astrophysics colloquium, CT, February, 2018

Stellar Dynamics in Galactic Nuclei," Princeton, IAS, November 2017 (invited talk)

Colloquium Center for Computational Astrophysics, Flatiron Institute, NY, September 2017

Physics colloquium Cal-Poly Pemona, CA, May 2017

ITC colloquium Harvard/CfA - ITC, Cambridge, MA, March 2017

Astronomy Colloquium: Northwestern CIERA, IL January 2017

Astronomy Colloquium: Carnegie observatories, CA September 2016

Astronomy Colloquium: Columbia University, NY September 2016

Physics & Astronomy colloquium California State University, Northridge, Northridge, CA,

August 2016

Astronomy Colloquium: University of California, Santa Cruz, CA, May 2016

Astronomy Colloquium: University of Michigan, MI, April 2016

Physics & Astronomy colloquium California State University, Long Beach, Long Beach, CA, February 2016

Dynamics and accretion at the Galactic Center," Aspen Colorado, February 2016 (PI)

American Astronomical Society 227, Kissimmee, Florida January 2016 (**Annie Jump Cannon Award plenary talk**)

Extreme Solar Systems III, Waikoloa Beach, Hawaii December 2015 (invited talk)

Astrophysics of Dark Matter," Institute for the Physics and Mathematics of the Universe (Kavli IPMU), The University of Tokyo, Kashiwa, Chiba, Japan, October 2015 (invited talk)

IAU general assembly, Honolulu, Hawaii, Aug 2015 (invited talk)

Sagan Summer Workshop on Exoplanetary System Demographics: Theory and Observations, Pasadena, California, July 2015 (**invited overview talk**)

Astronomy Colloquium: Canadian Institute for Theoretical Astrophysics, University of Toronto, Canada, May 2015

Astronomy Colloquium: University of Arizona, Arizona, USA, April 2015

TAC seminar University of California, Berkeley, CA, USA, November 2014

Astronomy Colloquium: UCI, Irvin, October 2014

CfA Colloquium Harvard/CfA, Cambridge, MA, 2014

IAS seminar Princeton, NJ, April 2014

Physics seminar University of Maryland, College Park, MD, November 2013

Astronomy Colloquium: UCLA, CA, April 2013

Physics Colloquium MIT, Cambridge, MA, March 2013

Exoplanets in Multi-body Systems in the Kepler Era," Aspen, CO, February 2013 (invited talk)

Astrophysics Colloquium UMass Amherst, MA, USA, January 2013

Exoplanets and Binaries: CoRoT and Kepler Mission Results, and Future Challenges," Tel Aviv, Israel, December 2012 (invited talk)

Astrophysics Colloquium The Ohio State University, OH, November 2012

TASC FLASH Seminar University of California Santa Cruze, CA, USA, October 2012

Astrophysics seminar University of California Santa Barbara, Santa Barbara, CA, October 2012

Astrophysics Colloquium Rochester University, NY, USA, September 2012

Astrophysics Colloquium Cornell, NY, USA, September 2012

Tapir Seminar Caltech, CA, USA, March 2012

Astrophysics Colloquium University of California, Berkeley, Berkeley, CA, March 2012

Astrophysics Seminar Boston University, MA, USA, October 2011

Extreme Solar Systems II, Jackson Hole, WY, September 2011 (invited talk)

Astronomy seminar Fermilab, Chicago, IL, May 2011

"Hydrogen Cosmology Workshop," Cambridge, MA, USA, May 18 – 20, 2011 (invited talk)

ITC colloquium Harvard/CfA - ITC, Cambridge, MA, March 2011

Astronomy seminar MIT, Cambridge, MA, March 2011

CosmoFirstObjects: International Meeting on High-z Cosmology," Marseille, French, May 3 – 6, 2011(invited talk)

Astronomy seminar Weizmann institute, Astrophysics Seminar, Israel, October 2010

Astronomy seminar Northwestern University, Evanston, IL, October 2010

AU Symposium 276 The Astrophysics of Planetary Systems: Formation, Structure, and Dynamical Evolution," Torino, Italy, October 11 – 15, 2010 (talk)

10th Great Lakes Cosmology Workshop," Chicago, IL, June 2010 (talk)

Aspen Winter Conference on Astrophysics The High Redshift Universe: A Multi- Wavelength View," Aspen, Colorado, February 2010 (talk)

Astrophysics Seminar University of Chicago, Seminar, IL, Chicago, January 2010

Astrophysics Seminar Technion, Haifa, Israel, October 2009

Astrophysics Seminar The Hebrew University of Jerusalem, Jerusalem, June 2009

Astrophysics Colloquium The Institute for the Physics and Mathematics of the Universe (IPMU), University of Tokyo, Seminar, Kashiwa, Japan, May 2009

Haifa workshop on cosmology and optimal transport," Haifa, Israel, March 2009 (talk)

Astrophysics Seminar Weizmann institute, Rehovot, Israel, March 2009

The 53st Annual Meeting of the Israel Physical Society," Be'er Sheva, Israel, December 2008 (talk)

Astrophysics Seminar Tel Aviv University, Tel Aviv, Israel, December 2008

Tapir Seminar Caltech, Pasadena, California, October 2008

Astronomy seminar UC Berkeley, Berkeley, California, September 2008

Astronomy seminar Princeton University, Princeton, New Jersey, September 2008

ITC seminar ITC CfA/Harvard, Cambridge, MA, October 2008

Galaxy Evolution workshop, Jerusalem, Israel, June 2008 (talk)

"HI Survival through Cosmic Times," Tuscan, Italy, June 11 – 15, 2007 (talk)

The 52st Annual Meeting of the Israel Physical Society, Israel, December 2006 (talk)

Aspen Winter Conference on Astrophysics, Cosmological Probes of Baryons and Dark Matter," Aspen, Colorado, January 2006 (talk)

The 51st Annual Meeting of the Israel Physical Society," Israel, December 2005 (talk)

International School of Cosmic Ray Astrophysics 14th Course on Neutrinos and Explosive Events in the Universe," Erice, Sicily, Italy, July 2004 (talk)

PUBLICATIONS

Total of 125 papers, 27 first-author, 60 second-author, more than six thousand citations, h-index=39 (ADS, Google Scholar)
†*Papers led by my mentees*

†Shariat, C.; El-Badry, Kareem; **Naoz, S.**; Rodriguez, A. C.; van Roestel, J. "Cataclysmic Variables in Triples: Formation Models and New Discoveries," 2025, submitted to Publications of the Astronomical Society of the Pacific, arXiv:2501.1402

†Shariat, C.; **Naoz, S.**; El-Badry, K.; Rodriguez, A. C.; Hansen, BB. M. S.; Angelo, I.; Stephan, A. P., "Once a Triple, Not Always a Triple: The Evolution of Hierarchical Triples that Yield Merged Inner Binaries," 2025, The Astrophysical Journal, 978, 47

†Faridani, T.; **Naoz, S.**; Li, G.; Rice, M.; Inzunza, N., "More Likely Than You Think: Inclination-Driving Secular Resonances are Common in Known Exoplanet Systems," 2025, The Astrophysical Journal, 978, 18

†Weldon, G. C.; **Naoz, S.**; Hansen, B. M. S., "The cold Jupiter eccentricity distribution is consistent with EKL driven by stellar companions," accepted to ApJ-Lett, arXiv:2411.05066

†Xuan, Z.; **Naoz, S.**,; Li, A.K. Y.; Kocsis, B.; Petigura, E.; Knee, A. M.; McIver, J; Kremer, K; Farr, W. M. "Extracting Astrophysical Information of Highly-Eccentric Binaries in the Millihertz Gravitational Wave Band," accepted to Physical Review D arXiv:2409.15413

†Lake, W.; Grudić, M. Y.; **Naoz, S.**; Yoshida, N.; Williams, C. E.; Burkhart, B.; Marinacci, F.; Vogelsberger, M.; Chen, A., "The Stellar Initial Mass Function of Early Dark Matter-free Gas Objects," 2024 under review in Nature, arXiv:2410.02868

†Shariat, C.; **Naoz, S.**; El-Badry, K.; Akira Rocha, K.; Kalogera, V.; Stephan, A. P.; Burdge, K. B.; Angelo, I., "Triple Evolution Pathways to Black Hole Low-Mass X-ray Binaries: Insights from V404 Cygni," 2024 submitted to ApJ, arXiv:2411.15644

†Akiba, T.; **Naoz, S.**; Madigan, A. "On the Formation of S-stars from a Recent Massive Black Hole Merger in the Galactic Center," 2024, submitted to ApJ-Lett, arXiv:2410.19881

†Stephan, A. P.; Martin, D. V.; **Naoz, S.**; Hughes, N. R.; Shariat, C., "Two Novel Hot Jupiter Formation Pathways: How White Dwarf Kicks Shape the Hot Jupiter Population," 2024, The Astrophysical Journal-Lett 977 11

†Weldon, G. C.; **Naoz, S.**; Hansen, B. M. S., "Analytical models for secular descents in hierarchical triple systems," 2024, The Astrophysical Journal,974, 302

†Lake, W; Williams, C. E.; **Naoz, S.**; Marinacci, F; Burkhart, B; Vogelsberger, M; Yoshida, N; Chiaki, G; Chen, A; Chiou, Y S., "The Supersonic Project: Early Star Formation with the Streaming Velocity," 2024, The Astrophysical Journal, 973, 115

Knee, A. M.; McIver, J.; **Naoz, S.**; Romero-Shaw, I. M.; Hoang, BM "Detecting gravitational-wave bursts from black hole binaries in the Galactic Center with LISA," 2024 The Astrophysical Journal-Letters, 971, 38

†Xuan, Z.; **Naoz, S.**,; Kocsis, B.; Michaely, E., "Stochastic Gravitational Wave Background from Highly-Eccentric Stellar-Mass Binaries in the Milli-hertz Band," 2024, Physical Review D, 110, 2.

Dage, K. C.; Bahramian, A; **Naoz, S.**; Bobrick, A.; Athukoralalage, W.; Brumback, M. C.; Haggard, D.; Kundu, A.; Zepf, S. E., "An extreme ultra-compact X-ray binary in a globular cluster:

multiwavelength observations of RZ 2109 explored in a triple system framework," 2024, Monthly Notices of the Royal Astronomical Society, 529 1347

Gautam, A. K.; Do, T.; Ghez, A. M.; Chu, D. S.; Hosek, M., Jr.; Sakai, S.; **Naoz, S.**; Morris, M. R.; Ciurlo, A; Haggard, A.; Lu, J. R. "An Estimate of the Binary Star Fraction Among Young Stars at the Galactic Center: Possible Evidence of a Radial Dependence," 2024, The Astrophysical Journal, 964, 164

†Xuan, Z.; **Naoz, S.**,; Kocsis, B.; Michaely, E., "Detecting Gravitational Wave Bursts From Stellar-Mass Binaries in the Milli-hertz Band," 2024, The Astrophysical Journal, 965, 148

†Michaely, E., **Naoz, S.**, "New Dynamical Channel: Wide Binaries in the Galactic Center as a Source of Binary Interactions," 2024, submitted to The Astrophysical Journal, arXiv2:3100.2558

†Jurado, C.; **Naoz, S.**; Lam, C. Y.; Hoang, BM., "Natal Kicks from the Galactic Center and Implications on their Environment and the Roman Space Telescope," 2024, The Astrophysical Journal 971, 95

†Williams, C. E.; Lake, W.; **Naoz, S.**; Burkhart, B.; Treu, T.; Marinacci, F.; Nakazato, Y.; Vogelsberger, M.; Yoshida, N.; Chiaki, G.; Chiou, Y. S.; Chen, A., "The Supersonic Project: Lighting up the faint end of the JWST UV luminosity function," 2024, The Astrophysical Journal-Lett, 960, 16

†Melchor, D.; Mockler, B.; **Naoz, S.**; Rose, S.; Ramirez-Ruiz, E., "Tidal Disruption Events from the Combined Effects of Two-Body Relaxation and the Eccentric Kozai-Lidov Mechanism," 2024, The Astrophysical Journal, .960, 39

Will, C. M.; **Naoz, S.**; Hees, A.; Tucker, A.; Zhang, E.; Do, T.; Ghez, A., "Constraining a Companion of the Galactic Center Black Hole Sgr A*," The Astrophysical Journal, 2023, 959, 58

Naoz, S. & Z. Haiman, "The Enhanced Population of Extreme Mass-Ratio Inspirals in the LISA Band from Supermassive Black Hole Binaries," 2023, The Astrophysical Journal-Lett, 955 27

Flores, M. M.; Kusenko, A.; Ghez, A. M., "G Objects and primordial black holes," 2023, Phys. Rev. D., 108, 1301

†Zhang, E.; **Naoz, S.**; Will, C. M., "A Stability Timescale for Nonhierarchical Three-body Systems," 2023, ApJ, 952, 103

†Shariat C.; **Naoz, S.**; Hansen, B. M. S.; Angelo, I.; Michaely, E.; Stephan, A. P., "Dynamical Evolution of White Dwarf Triples in the Era of Gaia," The Astrophysical Journal-Lett, 955, 14

†Mockler, B.; Melchor, D.; **Naoz, S.**; Ramirez-Ruiz, E. " Uncovering Hidden Massive Black Hole Companions with Tidal Disruption Events," 2023, The Astrophysical Journal, 959, 18

†Lake, W.; **Naoz, S.**; Marinacci, F.; Burkhart, B.; Vogelsberger, M.; Williams, C. E.; Chiou, Y. S.; Chiaki, G.; Nakazato, Y.; Yoshida, N., "The Supersonic Project: Star Formation in Early Star Clusters without Dark Matter," 2023, The Astrophysical Journal-Lett, .956, 7

†Faridani, T. H.; **Naoz, S.**; Li, G.; Inzunza, N., "Let's Sweep: The Effect of Evolving J2 on the Resonant Structure of a Three-Planet System," 2023, The Astrophysical Journal, 956, 90

Butkus, C. R.; Warren, A. O.; Kite, E. S.; Torres, S.; **Naoz, S.**; Glass, J. B., "A note on graphite hydrogenation as a source of abiotic methane on rocky planets: A case study for Mercury," 2023 Icarus, Volume 400, article id. 115580.

†Rose, S. C., **Naoz, S.**, Sari, R., Linial, I., "Stellar Collisions in the Galactic Center: Massive Stars, Collision Remnants, and Missing Red Giants," 2023, The Astrophysical Journal 955, 30

Arca Sedda, M.; **Naoz, S.**; Kocsis, B., "Quiescent and Active Galactic Nuclei as Factories of Merging Compact Objects in the Era of Gravitational Wave Astronomy," 2023, Universe, 9, 138

Chu, D. S.; Do, T.; Ghez, A.; Gautam, A. K.; Ciurlo, A.; Kosmo O'Neil, K.; Hosek, M. W., Jr.; Hees, A.; **Naoz, S.**; Sakai, S.; Lu, J. R.; Chen, Z.; Bentley, R. O.; Becklin, E. E.; Matthews, K. "Evidence of a Decreased Binary Fraction for Massive Stars Within 20 Milliparsecs of the Supermassive Black Hole at the Galactic Center," 2023, The Astrophysical Journal, 948, 94

Ciurlo, A. ; Campbell, R. D.; Morris, M. R.; Do, T.; Ghez, A. M.; Becklin, E. E.; Bentley, R. O.; Chu, D. S.; Gautam, A. K.; Gursahani, Y. A.; Hees, A.; O'Neil, K. K; Lu, J. R.; Martinez, G. D.; **Naoz, S.**; Sakai, S.; Schödel, R., "The Swansong of the Galactic Center Source X7: An Extreme Example of Tidal Evolution near the Supermassive Black Hole," 2023 The Astrophysical Journal, 944, 2, 36,

†Williams, C. E.; **Naoz, S.**; Lake, W.; Chiou, Y., S.; Burkhart, B.; Marinacci, F.; Vogelsberger, M.; Chiaki, G.; Nakazato, Y.; Yoshida, N.; "The Supersonic Project: The eccentricity and rotational support of SIGOs and DM GHOSts," 2023, The Astrophysical Journal, 945, 6

Moore, N. W. H.; Li, G.; Hassenzahl, L.; Nesvold, E. R. ; **Naoz, S.**; Adams, F. C.; "Formation History of HD106906 and the Vertical Warping of Debris Disks by an External Inclined Companion," 2023, The Astrophysical Journal, 943, 6

†Torres, S., **Naoz, S.**, Li, G., Rose, S. C., "Raining Rocks: An analytical formulation for collision timescales in planetary systems," 2023, Monthly Notices of the Royal Astronomical Society, 524, 1025

†Xuan, Z. ; **Naoz, S.**; Chen, X., "Eccentricity to the rescue! Detecting Accelerating Eccentric Binaries in the LISA Band," 2023, Physical Review D, 107, 2.

†Lake, W.; **Naoz, S.**; Burkhart, B.; Marinacci, F.; Vogelsberger, M.; Chiaki, G.; Chiou, Y., S.; Yoshida, N.; Nakazato, Y.; Williams, C. E., "The Supersonic Project: The Early Evolutionary Path of SIGOs," 2023, The Astrophysical Journal, 943, 132

Liu, C.; Mockler, B.; Ramirez-Ruiz, E.; Yarza, R.; Law-Smith, J.; **Naoz, S.**; Melchor, D.; Rose, S., "Tidal disruption events from eccentric orbits and lessons learned from the noteworthy ASASSN-14ko," 2023, The Astrophysical Journal, 944, 184

†Michaely, E., **Naoz, S.** "Ultra wide black-hole - neutron star binaries as a possible source for gravitational waves and short gamma ray bursts," 2022, The Astrophysical Journal, 936, 184

†Hoang, BM.; **Naoz, S.**; Sloneker, M. "Binary Natal Kicks in the Galactic Center: X-ray Binaries, Hypervelocity Stars, and Gravitational Waves," 2022, The Astrophysical Journal, 934, 54

†Angelo, I.; **Naoz, S.**; Petigura, E.; MacDougall, M.; Stephan, A.; Isaacson, H.; Howard, A. W., "Kepler-1656b's Extreme Eccentricity: Signature of a Gentle Giant," 2022, The Astrophysical Journal 163, 227

Naoz, S.; Rose, S. C.; Michaely, E.; Melchor, D.; Ramirez-Ruiz, E.; Mockler, B.; Schnittman, J. D., "The Combined Effects of Two-body Relaxation Processes and the Eccentric Kozai-Lidov Mechanism on the Extreme-mass-ratio Inspirals Rate," 2022, The Astrophysical Journal Letters, 927, 1

†Rose, S. C., **Naoz, S.**, Sari, R., Linial, I., "The Formation of Intermediate Mass Black Holes in Galactic Nuclei," 2022, The Astrophysical Journal Letters, 929, 22

†Nakazato, Y., Chiaki, G., Yoshida, N., **Naoz, S.**, Lake, W., Chiou, Y., S. "H_2 cooling and gravitational collapse of supersonically induced gas objects," 2022, The Astrophysical Journal Letters, 927, 1

†Faridani, T., **Naoz, S.**, Wei, L., Farr, W. M. , "Hiding Planets Near and Far: Predicting Hidden Companions for Known Planetary Systems," 2022, The Astrophysical Journal, 932, 78

†Wei, L., **Naoz, S.**, Faridani, T., Farr, W. M. , "Relativistic Dynamical Stability Criterion of Multi-Planet Systems with a Distant Companion," 2021 The Astrophysical Journal, 923 118

†Lake, W., **Naoz, S.**, Chiou, Y. S., Burkhart, B., Marinacci, F., Vogelsberger M., Kremer, K. "The Supersonic Project: SIGOs, a Proposed Progenitor to Globular Clusters, and their Connections to Gravitational Wave Anisotropies," 2021, The Astrophysical Journal, 922, 86

†Salas, J. M.; Morris, M. R.; **Naoz, S.**, "Modeling Turbulence in Galactic Centers," 2021 The Astrophysical Journal, 161, 243

†Chiou, Y. S., **Naoz, S.**, Burkhart, B., Marinacci, F., Vogelsberger M., "The Supersonic Project: To cool or not to cool Supersonically Induced Gas Objects (SIGOs)?," 2021, The Astrophysical Journal, 906, 25

†Dinh, C. K.; Salas, J. M.; Morris, M. R.; **Naoz, S.**, "Effects of turbulence in the Circumnuclear Disk," 2021, The Astrophysical Journal, 920, 79

†Wang, H.; Stephan, A. P.; **Naoz, S.**; Hoang, B.; Breivik, K. "Gravitational-Wave Signatures from Compact Object Binaries in the Galactic Center," 2021,The Astrophysical Journal, 917, 76

†Stephan, A. P., **Naoz, S.**, Gaudi, S. B., "Giant Planets, Tiny Stars: Producing Short-Period Planets around White Dwarfs with the Eccentric Kozai-Lidov Mechanism," 2021, The Astrophysical Journal, 922, 4

†Rose, S. C.; **Naoz, S.**,; Gautam, A. K.; Ghez, A. M.; Tuan D.; Chu, D.; Becklin, E. "On Socially Distant Neighbors: Binaries to Constrain the Density of Objects in the Galactic Center," 2020, The Astrophysical Journal, 904, 113

Hansen, B. & **Naoz, S.**, "The Stationary Points of the Hierarchical Three Body Problem," 2020, Monthly Notices of the Royal Astronomical Society 499, 1682

Martinez, M. A. S.; Fragione, G.; Kremer, K.; Chatterjee, S.; Rodriguez, C. L.; Samsing, J.; Ye, C. S.; Weatherford, N. C.; Zevin, M.; **Naoz, S.**, Rasio, F. A., "Black Hole Mergers from Hierarchical Triples in Dense Star Clusters," 2020 accepted to The Astrophysical Journal, 903, 67

†Hoang, B.; **Naoz, S.**,; Kremer, K. "Neutron Star-Black Hole Mergers from Gravitational Wave Captures," 2020 The Astrophysical Journal, 903, 8

†Deme, B.; Hoang, B.; **Naoz, S.**,; Kocsis B.,"Detecting Kozai-Lidov imprints on the gravitational waves of intermediate-mass black holes in galactic nuclei," 2020, The Astrophysical Journal, 901, 125

Fragione, G.; Martinez, M. A. S.; Kremer, K.; Chatterjee, S.; Rodriguez, C. L.; Ye, C. S.; Weatherford, N. C.; **Naoz, S.**; Rasio, F. A., "Demographics of triple systems in dense star clusters," 2020

The Astrophysical Journal, 900, 16

Naoz, S., Will, C. M., Ramirez-Ruiz, E., Hees, A., Ghez, A M., Do, T., "A Hidden Friend for the Galactic Center Black Hole, Sgr A*," 2020 The Astrophysical Journal–Letters, 888, 8

Ciurlo, A., Campbell, R. D., Morris, M. R.; Do, T., Ghez, A. M., Hees, A., Sitarski, B. N., Kosmo O'Neil, K., Chu, D. S., Martinez, G. D., **Naoz, S.**, Stephan, A. P., "A population of dust-enshrouded objects orbiting the Galactic black hole," 2020, *Nature*, 577, 337

†Stephan, A. P., **Naoz, S.**, Gaudi, S. B., Salas, J. M., "Eating Planets for Lunch and Dinner: Signatures of Planet Consumption by Evolving Stars," 2020, The Astrophysical Journal 889, 45

†Cheng, S. J., Vinson, A., M., **Naoz, S.**, "Interacting young M-dwarfs in triple system - Par 1802 binary system case study," 2019, Monthly Notices of the Royal Astronomical Society, 489 2298

Naoz, S., Silk, J., Schnittman, J. D. "Dark Matter Signatures of Supermassive Black Hole Binaries," 2019, The Astrophysical Journal–Letters, 885, 35

Tuan, D.,...**Naoz, S.**, et al. " Relativistic redshift of the star S0-2 orbiting the Galactic Center supermassive black hole," 2019, Science, 365, 664

†Chiou, Y. S., **Naoz, S.**, Burkhart, B., Marinacci, F., Vogelsberger M., "The Supersonic Project: Shining Light on SIGOs - a New Formation Channel for Globular Clusters," 2019, The Astrophysical Journal – Letters, 878, 23

†Salas, J. M., **Naoz, S.** Morris, M. R., Stephan, A. P., "Unseen companions of V Hya inferred from periodic ejections," 2019, Monthly Notices of the Royal Astronomical Society, 487, 3029

†Rose, S. C., **Naoz, S.**, Geller, A. M., "Companion-driven evolution of massive stellar binaries," 2019, Monthly Notices of the Royal Astronomical Society, .488, 2480

†Stephan, A. P., **Naoz, S.**, Ghez, A. M., Morris, M. R., Ciurlo, A., Do, T., Breivik, K., Coughlin, S., Rodriguez, C. L., "The Fate of Binaries in the Galactic Center: The Mundane and the Exotic," 2019, The Astrophysical Journal, 878, 58 *featured in AAS NOVA*

†Hoang, BM, **Naoz, S.**, Kocsis, B., Farr, W. M., McIver, J. "Detecting Supermassive Black Hole–induced Binary Eccentricity Oscillations with LISA," 2019, The Astrophysical Journal – Letters, 875, 31

†Lu, C. X. & **Naoz, S.** "Supernovae Kicks in Hierarchical Triple Systems," 2019, Monthly Notices of the Royal Astronomical Society, 484, 1506

†Denham, P., **Naoz, S.**, Hoang, BM., Stephan, A. P., Farr, W. M., "Hidden Planetary Friends: On the Stability Of 2-Planet Systems in the Presence of a Distant, Inclined Companion," 2019, Monthly Notices of the Royal Astronomical Society, 482, 4146

de Elía, G. C.; Zanardi, M.; Dugaro, A.; **Naoz, S.** "Inverse Lidov-Kozai resonance for an outer test particle due to an eccentric perturber," 2019, Astronomy and Astrophysics, 627, 17

†Chiou, Y. S., **Naoz, S.**, Marinacci, F., Vogelsberger M., "The Supersonic Project: rotational effects of supersonic motions on the first structures in the Universe," 2018, Monthly Notices of the Royal Astronomical Society, 481, 3108

†Stephan, A. P., **Naoz, S.**, Gaudi, S. B., "A-type Stars, the Destroyers of Worlds: The lives and

deaths of Jupiters in evolving stellar binaries," 2018, The Astronomical Journal, 156, 128

Naoz, S., Ghez, A. M., Hees, A., Do, T., Witzel, G., Lu, J. R., "Confusing binaries: the role of stellar binaries in biasing disk properties in the Galactic Center," 2018, The Astrophysical Journal – Letters, 853, 24

†Qureshi, A., **Naoz, S.**, Shkolnik, E., "Signature of Planetary Mergers on Stellar Spins," 2018, The Astrophysical Journal, 864, 65

Zanardi, M. de Ela, G. C., Di Sisto, R. P., **Naoz, S.,** "The role of the general relativity on icy body reservoirs under the effects of an inner eccentric Jupiter," 2018, Astronomy and Astrophysics, 615, 21

†Hoang, BM., **Naoz, S.,** Kocsis, B., Rasio, F. A., Dosopoulou, F., "Black Hole Mergers in Galactic Nuclei Induced by the Eccentric Kozai-Lidov Effect," 2018, The Astrophysical Journal, 856, 140

Topping, M. W., Shapley, A. E., Steidel, C. C., **Naoz, S.,** Primack, J. R., "Understanding substructure in the SSA22 protocluster region using cosmological simulations," 2018, The Astrophysical Journal, 852, 134

Chu, D. S., Do, T., Hees, A., Ghez, A. M., **Naoz, S.**, Witzel, G., Sakai, S., Chappell, S., Gautam, A. K., Lu, J. R.; Matthews, K., "Investigating the Binarity of S0-2: Implications for its Origins and Robustness as a Probe of the Laws of Gravity around a Supermassive Black Hole," 2018, the Astrophysical Journal, 854, 12

†Li, G., Ginsburg, I., **Naoz, S.,** Loeb, A., "Eclipsing Stellar Binaries in the Galactic Center," 2017 The Astrophysical Journal, 851, 131

†Dosopoulou, F., **Naoz, S.,** Kalogera, V., "Roche-lobe overflow in eccentric planet-star systems," 2017, The Astrophysical Journal, 844, 12

†Stephan, A. P., **Naoz, S.,** Zuckerman, B., "Throwing Icebergs at White Dwarfs," 2017, The Astrophysical Journal – Letters, 844, 16 *featured in AAS NOVA*

Naoz, S., Li, Zanardi, M. de Ela, G. C., Di Sisto, R. P., "The Eccentric Kozai-Lidov mechanism for Outer Test Particle," 2017, The Astronomical Journal, 154, 18

Witzel, G., Sitarski, B. N., Ghez, A M., Morris, M R., Hees, A., Do, T.,; Lu, J. R., **Naoz, S.,** Boehle, A., Martinez, G., Chappell, S., Schodel, R., Meyer, L., Yelda, S., Becklin, E. E., Matthews, K., "The Post-Periapse Evolution of Galactic Center Source G1: The second case of a resolved tidal interaction with a supermassive black hole," 2017, The Astrophysical Journal, 847, 80

Hees, A., Do, T. Ghez, A. M., Martinez, G. **Naoz, S.,** Becklin, E. E., Boehle, A., Chappell, S., Chu, D., Dehghanfar, A., Kosmo, K., Lu, J. R., Matthews, K., Morris, M. R., Sakai, S., Schdel, R., Witzel, G., "Testing General Relativity with stellar orbits around the supermassive black hole in our Galactic center," 2017, **Physical Review – Letters**, 118, 21, *Selected for PRL's Editors' Suggestion*

†Nesvold, E. R., **Naoz**, S., Fitzgerald, M., "HD 106906: A Case Study for External Perturbations of a Debris Disk," 2017, The Astrophysical Journal–Letters, 837, 6, *press release*

Zanardi, M. de Ela, G. C., , Di Sisto, R. P., **Naoz, S.,** Li, G., Guilera, O. M., Brunini, A. "Effects of an eccentric inner Jupiter on the dynamical evolution of icy body reservoirs in a planetary scattering scenario," 2017, Astronomy and Astrophysics, 605, 64

†Nesvold, E. R., **Naoz, S.,** Vican, L., Farr, W. M. "Circumstellar Debris Disks: Diagnosing the Unseen Perturber," 2016, The Astrophysical Journal, 826, 1, 11

†Stephan, A. P. **Naoz, S.,** Ghez A. M., Witzel, G. Sitarski B. N. Do, T. Kocsis, B. "Merging Binaries in the Galactic Center: The eccentric Kozai-Lidov mechanism with stellar evolution," 2016, Monthly Notices of the Royal Astronomical Society, 460, 4, 3494-3504

Naoz, S. "The Eccentric Kozai-Lidov Effect and Its Applications," 2016, **Annual Review of Astronomy and Astrophysics**, 54, 441-489

†Popa, C., **Naoz, S.,** Marinacci, F., Vogelsberger, M. "Gas rich and gas poor structures through the stream velocity effect," 2016, Monthly Notices of the Royal Astronomical Society, 460, 2, 1625-1639

Naoz, S., Fragos, T., Geller, A., Stephan, A. P., Rasio, F. A. "Formation of Black Hole Low-Mass X-ray Binaries in Hierarchical Triple Systems," 2016, The Astrophysical Journal – Letters, 822, 24

†Li, G. **Naoz, S.,** Kocsis, B. Loeb, A. "Implications of the Eccentric Kozai-Lidov Mechanism for Stars Surrounding Supermassive Black Hole Binaries," 2015, Monthly Notices of the Royal Astronomical Society, 451, 1341

Witzel G., Ghez, A. M., Morris, M. R., Sitarski, B. N., Boehle, A., **Naoz, S.** , Campbell, R., Becklin, E. E., Canalizo, G., Chappell, S., Do, T., Lu, J. R., Matthews, K., Meyer, L., Stockton, A., Wizinowich, P., Yelda, S. "Detection of Galactic Center Source G2 at 3.8 μm during Periapse Passage," 2014, The Astrophysical Journal – Letters, 796, 8

Naoz, S. & Narayan, R. "Globular Clusters and Dark Satellite Galaxies through the Stream Velocity," 2014, The Astrophysical Journal – Letters, 791, 8

Naoz, S. & Fabrycky, D. "Mergers and Obliquities in Stellar Triples," 2014, The Astrophysical Journal 793, 137

†Li, G. **Naoz, S.,** F. Valsecchi, J. A. Johnson, F. A. Rasio "The Dynamics of the Multi-planet System Orbiting Kepler-56," 2014, The Astrophysical Journal, 794, 131

Naoz, S. & Silk, J. "Formation of Dark Matter Torii Around Supermassive Black Holes Via The Eccentric Kozai-Lidov Mechanism," 2014, The Astrophysical Journal 795, 102

†Li, G. **Naoz, S.,** M. Holman, A. Loeb "Chaos in the Test Particle Eccentric Kozai-Lidov Mechanism," 2014, The Astrophysical Journal, 791, 86

†Li, G. **Naoz, S.,** Kocsis, B. Loeb, A. "Eccentricity growth and orbit flip in coplanar hierarchical three body systems," 2014 ,The Astrophysical Journal, 785, 116

Naoz, S. & Narayan, R. "Generation of Primordial Magnetic Fields on Linear Over-density Scales," 2013, **Physical Review – Letters** 111, 5, *Selected for a Viewpoint in Physics*

†Teyssandier, J. **Naoz, S.,** Lizarraga, I. Rasio, F., "Extreme Orbital Evolution from Hierarchical Secular Coupling of Two Giant Planets," 2013, The Astrophysical Journal, 779, 166

Fragos, T., Lehmer, B. D. **Naoz, S.,** Zezas, A. Basu-Zych, A. "Energy Feedback from X-Ray Binaries in the Early Universe," 2013, The Astrophysical Journal – Letters, 776, 31

Naoz, S., Kocsis, B., Loeb, A., Yunes, N. "Resonant Post-Newtonian Eccentricity Excitation in Hierarchical Three-body Systems," 2013, The Astrophysical Journal, 773, 187

Naoz, S., Farr, W. M., Lithwick, Y., Rasio, F., Teyssandier, J. "Secular Dynamics in Three-Body Systems," 2013, Monthly Notices of the Royal Astronomical Society, 431, 2155

Naoz, S., Yoshida, N., & Gnedin, N. Y. "Simulations of Early Baryonic Structure Formation with Stream Velocity: II. The Gas Fraction," 2013, The Astrophysical Journal, 763, 27

Naoz, S., Farr, W. M., & Rasio, F. "On the Formation of Hot Jupiters in Stellar Binaries," 2012, The Astrophysical Journal – Letters, 754, 36

Naoz, S., Yoshida, N., & Gnedin, N. Y. "Simulations of Early Baryonic Structure Formation with Stream Velocity: I. Halo Abundance," 2012, The Astrophysical Journal, 747, 128

Lithwick, Y., & **Naoz, S.,** "The Eccentric Kozai Mechanism for a Test Particle," 2011, The Astrophysical Journal, 742, 94

Naoz, S., Farr, W. M., Lithwick, Y., Rasio, F., Teyssandier, J. "Retrograde Hot Jupiters from Secular Planet–Planet Interactions," 2011, **Nature**, 473, 187

Naoz, S., Yoshida, N., & Barkana, R. "The nonlinear evolution of baryonic overdensities in the early universe: Initial conditions of numerical simulations," 2011, Monthly Notices of the Royal Astronomical Society, 461, 232

Naoz, S., Perets, H. B., & Ragozzine, D. "Orbital properties of binary minor planets," 2010, The Astrophysical Journal, 719, 1775

Naoz, S., Barkana, R., & Mesinger, A. "Gas in Simulations of High Redshift Galaxies and Mini-Halos," 2009, Monthly Notices of the Royal Astronomical Society, 399, 369

Perets, H. B., & **Naoz, S.,** "Kozai cycles, tidal friction and the dynamical evolution of binary minor planets," 2009, The Astrophysical Journal – Letters, 699, L17

Naoz, S. & Barkana, R. "Detecting Early Galaxies Through Their 21-cm Signature," 2008, Monthly Notices of the Royal Astronomical Society – Letters, 385, L63

Naoz, S. & Bromberg, O. "An Observational Limit on the Earliest Gamma Ray Bursts," 2007, Monthly Notices of the Royal Astronomical Society, 380, 757

Naoz, S. & Barkana, R. "The Formation and Gas Content of High Redshift Galaxies and Minihalos," 2007, Monthly Notices of the Royal Astronomical Society, 273, 667

Naoz, S. & Shaviv, N. J. "Open Cluster Birth Analysis and Multiple Spiral Arm Sets in the Milky Way," 2007, New Astronomy, 12, 410

Naoz, S., Noter, S., & Barkana, R. "The First Stars in the Universe," 2006, Monthly Notices of the Royal Astronomical Society – Letters, 373, L98

Naoz, S. & Barkana, R. "Growth of Linear Perturbations before the Era of the First Galaxies," 2005, Monthly Notices of the Royal Astronomical Society, 362, 1047

Other Publications

Naoz, S. "Planet swallowed after veering too close to its star," 2023, Nature News & Views, Vol. 617, 38

Naoz, S. "Jupiter's Role in Sculpting the Early Solar System," 2015, Publication of the National Academy of Science (PNAS), Commentary 112, 14, 4189

Naoz, S., "The Lidov-Kozai Effect: Applications in Exoplanet Research and Dynamical Astronomy, by I. Shevchenko," book review for the The Observatory Magazine (December 2017 issue)