

CURRICULUM VITAE

Smadar Naoz

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CONTACT INFORMATION

University of California Los Angeles,
Department of Physics & Astronomy
30 Portola Plaza, Box 951547
Los Angeles, CA 90095

E-mail: snaoz@astro.ucla.edu

WWW: <http://www.astro.ucla.edu/~snaoz/>

RESEARCH INTERESTS

Dynamics of planetary, stellar and black hole systems, which include formation of Hot Jupiters, globular clusters, spiral structure, compact objects etc. Cosmology, structure formation in the early Universe, reionization and 21cm fluctuations.

EDUCATION

Tel Aviv University, Tel Aviv, Israel

Ph.D. in Physics, January 2010, Advisor: Rennan Barkana

Hebrew University of Jerusalem, Jerusalem, Israel

M.S. in Physics, Magna Cum Laude, 2004, Advisor: Nir J. Shaviv

B.S. in Physics 2002

POSITIONS

University of California, Los Angeles

Assistant professor *since July 2014*

Harvard Smithsonian CfA, Institute for Theory and Computation

Einstein Fellow, *September 2012 – June 2014*

ITC Fellow, *September 2011 – August 2012*

Northwestern University, CIERA

Gruber Fellow, *September 2010 – August 2011*

Postdoctoral associate in theoretical astrophysics, *January 2010 – August 2010*

SCHOLARSHIPS HONORS AND AWARDS

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

UCLA Department of Physics and Astronomy contribution for diversity award, given as recognition for efforts to diversity and inclusion, *2017*

Outstanding teaching award, for Astro-286, exoplanets, *Winter 2015*, and for Phys-105A, analytical mechanics, *Winter 2016* and **teacher of the year award**, for Astro-273, Phys-105A, Phys-1B and novel contribution to student mentoring, 2015-2016 academic year, awarded by UCLA Department of Physics and Astronomy

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, 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, 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

Graduate Students

Sanaea Rose, August 2017 – present

Jesus Salas, April 2016 – present

Yeou Chiou, January 2017 – present

Bao Minh Hoang, September 2016 – present

Alexander P. Stephan, August 2014 – present

Undergraduate Students

Igor Van Der Put, June 2017 – present

Shelley Cheng, January 2017 – present

Joseph Guzman, REU (summer 2016) and CSLB - Cal-bridge Undergraduate Student June 2015 – present

Paul Denham, June 2016 – present

Isabella Goetting, November 2016 – present

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 a Junior Fellow at the Society of Fellows in Harvard University / Assistant. Prof. in Georgia Tech (starting Jan. 2018)

Northwestern University

Undergraduate Students

Jean Teyssandier, May 2010 – September 2011; Now a Postdoc at Cornell.

Ian Lizarraga, September 2010 – August 2011; Now a Postdoc at Cornell.

Leah A. Iasaman, REU, June – August 2011

Bradley Solomon, REU, June – August 2010

CONFERENCE
PARTICIPATION
(SELECTED)

- “Gravitational Wave Astrophysics,” Sackler Conference, Harvard, ITC, May 2018 (invited talk)
- “Stellar Dynamics in Galactic Nuclei,” Princeton, IAS, November 2017 (invited talk)
- “Dynamics and accretion at the Galactic Center,” Aspen Colorado, February 2016 (PI, talk)
- “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)
- “Exoplanets in Multi-body Systems in the Kepler Era,” Aspen, CO, February 2013 (invited talk)
- “Exoplanets and Binaries: CoRoT and Kepler Mission Results, and Future Challenges,” Tel Aviv, Israel, December 2012 (invited talk)
- “Extreme Solar Systems II,” Jackson Hole, WY, September 2011 (invited talk)
- “Hydrogen Cosmology Workshop,” Cambridge, MA, USA, May 18 – 20, 2011 (invited talk)
- “CosmoFirstObjects: International Meeting on High-z Cosmology,” Marseille, French, May 3 – 6, 2011 (invited talk)
- “IAU 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)
- “Haifa workshop on cosmology and optimal transport,” Haifa, Israel, March 2009 (talk)
- “The 53st Annual Meeting of the Israel Physical Society,” Be’er Sheva, Israel, December 2008 (talk)
- “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)
- “Reionizing the Universe. The Epoch of Reionization and the Physics of the IGM,” Groningen, The Netherlands, June 2005 (poster)
- International School of Cosmic Ray Astrophysics 14th Course on “Neutrinos and Explosive Events in the Universe,” Erice, Sicily, Italy, July 2004 (talk)

COLLOQUIA AND
SEMINARS
(SELECTED)

University of California Riverside, Physics colloquium, CA, May 2018
University of California Santa Barbara, Astrophysics colloquium, CA, April 2018
University of Florida, Gainesville, Astrophysics colloquium, FL, April 2018
Yale University, New Haven, Astrophysics colloquium, CT, February, 2018
Center for Computational Astrophysics, Flatiron Institute, Colloquium, NY, September 2017
Cal-Poly Pemona, Physics colloquium, CA, May 2017
Harvard/CfA - ITC colloquium, MA, March 2017
Northwestern CIERA, IL January 2017
Carnegie observatories, CA September, 2016
Columbia University, NY September , 2016
CSUN, CA, August 2016
University of California, Santa Cruz, CA, May 2016
University of Michigan, MI, April 2016
CSU Long Beach, CA, February 2016
UCLA physics colloquium, CA, February 2016
Canadian Institute for Theoretical Astrophysics, University of Toronto, Canada, May 2015
University of Arizona, Arizona, USA, April 2015
Caltech, Tea talk, CA, USA, December 2014
University of California, Berkeley, TAC seminar, CA, USA, Nov. 2014
UC Irvin astro-colloquium, Oct. 2014
CfA colloquium, May 2014
IAS seminar, Princeton, NJ, April 2014
UMD, physics seminar, Maryland, November 2013
UCLA Astrophysics Colloquium, CA, April 2013
MIT physics Colloquium, MA, March 2013
UMass Amherst, Astrophysics Colloquium, MA, USA, January 2013
Ohio state University, Astrophysics Colloquium, OH, USA, November 2012
University of California Santa Cruze, TASC FLASH Seminar, CA, USA, October 2012
University of California Santa Barbara, Astro-Seminar, CA, USA, October 2012
Rochester University, Astrophysics Colloquium, NY, USA, September 2012
Cornell, Astrophysics Colloquium, NY, USA, September 2012
Caltech, Tapir Seminar, CA, USA, March 2012
University of California, Berkeley, CA, USA, March 2012
Boston University, Astrophysics Seminar, MA, USA, October 2011
Harvard University, ITC Colloquium, MA, USA, March 2011
MIT, MA, USA, March 2011
Weizmann institute, Astrophysics Seminar, Israel, October 2010
Northwestern University, IL, USA, October 2010

COLLOQUIA AND
SEMINARS
(SELECTED) -
CONTINUES

University of California, Berkeley, CA, USA, March 2012
Fermilab, Astrophysics Seminar, Chicago, IL, USA May 2011
Harvard University, MA, USA, September 2011
Technion, Astrophysics Seminar, Haifa, Israel, October 2009
University of Chicago, Seminar, IL, Chicago, USA, January 2010
Northwestern University, IL, USA, January 2010
Northwestern University, IL, USA, September 2009
The Institute for the Physics and Mathematics of the Universe, University of Tokyo, Seminar, Kashiwa, Japan, May 2009
The Hebrew University of Jerusalem, Astrophysics Seminar, Jerusalem, June, 2009
Weizmann institute, Astrophysics Seminar, Rehovot, Israel, March 2009
Caltech, Pasadena, Tapir Seminar, California, October 2008 (Tapir Seminar)
UC Berkeley, Berkeley, California, September 2008
Princeton University, Princeton, New-Jersey, September 2008
ITC Harvard, Cambridge, MA, October 2008 (ITC Seminar)
Tel Aviv University, Astrophysics Seminar, Tel Aviv, Israel, December, 2008

SERVICE
(SELECTED):

In the community:

Referee for *Astrophysical Journal*, *Astronomical 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*.
Steering committee member (Summer 2015 – Dec. 2016) and a mentor at the Cal-bridge program since 2015
(see <http://www.cpp.edu/~sci/physics-astronomy/research/cal-bridge.shtml>)
Invited Scientific Editor for *Nature Scientific Reports* (online journal in all areas of natural sciences by the Nature Publishing Group), July 2014 – present
BSF: United States - Israel Binational Science Foundation reviewer, winter 2017
ATP NASA review panel, Fall 2013, Fall 2016, and proposal reviewer for the NASA Fall 2011
HST review panel, Spring 2016
National Science Foundation (NSF) review panel, Spring 2013, Winter 2018
The Netherlands Organisation for Scientific Research, reviewer, 2016, 2018
* for conference organizations, see below.

In UCLA:

Chair of Astro-diversity committee, UCLA, Spring 2016 – present
Chair of Physics-diversity committee, UCLA, Jan. 2017 – present (*leading the formation of APS - bridge program*)
Member of the Physical Sciences Diversity Committee, UCLA, Summer 2016 – present
UCLA's Division of Astronomy and Astrophysics **grad adviser representative** and coordinator of Graduate students and postdocs mentoring program, Sept. 2015 – present
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 affair and academic affair committees, Sept. 2016 – present

Member of UCLA’s Astronomy Colloquium Committee, July 2014 – present

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 paper in the literature), 2008 - 2009

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

cosmology students conference series

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 woman and minorities in science), 2006 – 2009

CONFERENCE
ORGANIZING

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

Organizer of UCLA AstroBash - The Division of Astronomy and Astrophysics show and tell. Dec. 2015, Oct. 2016, Sept. 2017

LISA Symposium International Advisory Board, Chicago, August 2018

SOC ExSoCal, September, CA 2017

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

SOC for extreme solar system, iii, Nov-Dec Hawaii 2015, and iV, planned in Iceland, August 2019

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

Astro-270 Astrophysics Dynamics, UCLA (Fall 2016)
Physics 105A Analytical mechanics, UCLA (winter 2016,2017,2018)
Astro-273 Diffuse Matter in Space, UCLA (Fall 2015,2017)
Physics 1B, electromagnetism and wave, UCLA (spring 2015,2016)
Astro-286 Exoplanets, Graduate course, UCLA (winter 2015)
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 AND INCLUSION (SELECTED)

Chair of Physics-diversity committee, UCLA, Jan. 2017 - -present
Leading the efforts to form an APS physics bridge program in UCLA. First cohort is expected to begin on Fall 2018.
Initiator and Chair of the Astronomy diversity committee, Spring 2016 – present
Member of the Physical Sciences Diversity Committee, UCLA, Summer 2016 - -present
UCLA's Division of Astronomy and Astrophysics grad adviser representative and coordinator of Graduate students and postdocs mentoring program, Sept. 2015 – present
LOC of the Conference for Undergraduate Women in Physics (CUWiP), UCLA, January 2017
Panelist in the Conference for Undergraduate Women in Physics (CUWiP), January 2017, 2018
Steering committee member and a mentor at the Cal-bridge program since 2015
(see <http://www.cpp.edu/~sci/physics-astronomy/research/cal-bridge.shtml>)
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 2014!* UCLA's outreach program Nov. 2014
(see <http://www.astro.ucla.edu/~outreach/eyu2014>)
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 expanding 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 adult to complete high school diploma at the Hebrew University of Jerusalem 1999-2000

Total of 50 papers, 23 first author, 18 second author, h-index=25 (Google Scholar)

†Papers led by my mentees

†Lu, C. X. & **Naoz, S.** “Supernovae Kicks in Hierarchical Triple Systems,” 2018 submitted to Monthly Notices of the Royal Astronomical Society, arXiv:18050.6897

†Denham, P., **Naoz, S.**, Hoang, B.M., Stephan, A. P., Farr, W. M., “Hidden Planetary Friends: On the Stability Of 2-Planet Systems in the Presence of a Distant, Inclined Companion,” 2018, submitted to Monthly Notices of the Royal Astronomical Society, arXiv:1802.00447

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, submitted to The Astrophysical Journal, arXiv:1802.08260

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,” Accepted to Accepted to Astronomy and Astrophysics, arXiv:1804.1145

†Hoang, B., **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 Binariness 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, G., 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-Periaapse 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*

Safarzadeh, M., **Naoz, S.**, Sadowski, A., Sironi, L., Narayan, R. “Generation of toroidal magnetic fields in accretion disks,” 2017, Submitted to *Monthly Notices of the Royal Astronomical Society*, arXiv:1701.03800

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 Mini-halos,” 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. “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)