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RESUME

Hagai Binyamin Perets

1. PERSONAL DETAILS

Full Name: Hagai B. Perets

Identity No: 033751835

Marital status: Married (+3)

Phone numbers: +972-53-5481264

E-mail: hperets@physics.technion.ac.il

ORCID ID: 0000-0002-5004-199X

Web site: <http://hagaiperets.wixsite.com/perets-group>

ACADEMIC DEGREES

PhD: Physics, Physics department, Weizmann Institute of Science, adviser: Tal Alexander (RIP), 2009

MSc: Physics, Physics department, Hebrew University in Jerusalem, adviser: Ofer Biham, 2004

“Amirim Ruah” honors program: Hebrew university in Jerusalem, 2001-2004

BA: Mathematics and Science, Open University of Israel, 2001, cum Laude

ACADEMIC APPOINTMENTS

2024-: Professor, Technion – Israel Institute of Technology

10/2021-2023: Visiting professor, Natural sciences department, The open university, Israel

2018-2023: Tenured Associate Professor, Technion – Israel Institute of Technology

2020-2021: Sabbatical invited visiting scientist at Caltech (USA), UCSB (USA), Berkeley (USA) and Monash (Australia)

10/2012-12/2017: Assistant Professor, Technion – Israel Institute of Technology

2009-2012: Prize postdoc fellowships at the Harvard Institute for Theory & Computation

PROFESSIONAL EXPERIENCE (outside academia)

2001-2002: Geshar organization, group moderator and seminary-head

1998-2001: Mathematical and algorithmic research Officer and team leader, First Lieutenant, IDF (intelligence)

1996-1998: Mathematical and algorithmic researcher, IDF (intelligence)

RESEARCH INTERESTS

Astrophysics: Galactic, stellar, and planetary dynamics; Planet formation and the Solar system; stellar evolution, supernovae; gravitational-wave sources, tidal disruption events

PRIZE FELLOWSHIPS, AWARDS AND HONORS

1. Technion Cooper prize for excellence in research, 2021
2. Kingsley distinguished visiting professor at Caltech, 2019
3. Elected member of the Israel young National Academy, 2018-2022
4. Kavli fellow 2013 (US-Israel national academies of science, Kavli frontiers of Science program)
5. Deloro Career Advancement Chair 2012-2014 (Technion - Israel Institute of Technology)

6. Harvard-Smithsonian CfA Prize Fellowship, 2010-2012 (Harvard University, Smithsonian astrophysical observatory)
7. Rothschild Prize Fellow, 2009-2010 (Rothschild Yad-Hanadiv Foundation)
8. Fulbright Prize Fellow, 2009-2010 (United States-Israel Educational Foundation)
9. The Ilan-Ramon prize fellowship, 2009-2010 (added to Fulbright fellowship as a special award by the Israeli Commercial and Industrial Club)
10. FIRST (BIKURA) prize Fellow, 2009-2011 (Israel Science Foundation)
11. International Dan-David Scholar Prize, 2009 (Tel-Aviv University)
12. Offered the following prize fellowships (2009): Caltech prize fellowship, TAC Berkeley fellowship, UCSB KITP prize fellowship, CITA fellowship (all declined)
13. The Israeli Commercial and Industrial Club award for outstanding achievements, 2007
14. Racah award for excellence in research, 2004 (Racah institute of physics, Hebrew university in Jerusalem)
15. Amirim Scholarship for outstanding students, 2001-2004 (Hebrew University in Jerusalem)
16. Prize scholarships, 1993, 1994, 2000 (Open University of Israel)
17. Research Excellence awards 2000, 2001 (IDF)

TEACHING EXPERIENCE

2013-2023: Taught courses for undergraduate (Physics 1m, Electrodynamics and electromagnetism, Astrophysics and cosmology, scientific discoveries) and graduate students (Stellar physics, selected topics in astrophysics, Galactic dynamics). This includes development of special flipped-class courses format in several courses, and the development of a new course: Cosmic explosions.

2013: Special national level I-CORE graduate course in binary stars and planets, lecturer; co-organized and developed with Tsevi Mazeh from Tel-Aviv University

2009-2023: Undergraduate research project course mentor of 14 students at Technion (12) and Harvard university (2)

2011, 2016: Mentor/co-Mentor of PhD projects (Fabio Antonini at Harvard-ITC pre-doc program; Avi Blasbeger at Technion, co-mentored, with Ehud Behar)

2005-2009: Weizmann Institute of Science, TA in the graduate course Astrophysics & Cosmology

2003-2004 Hebrew University in Jerusalem, Lab TA, undergraduate Physics 2nd year lab

TECHNION ACTIVITIES

2023-: Chair of the Technion Faculty association, 2023

2021-2022: Member of the Technion Tikva diversity committee

2021: Member of the committee for course development

2020-2021: Mentor and co-organizer of the 1st Technion young-PIs mentoring annual program

2019: Organizer of the multi-disciplinary Academix@home program (part of the Israeli young national academy activities)

2019: Special committee on Technion HPCs

2012-2014: Board member, Technion high performance computation (HPC, Tamnun) committee

2012-2014: Member, Technion computation and communication committee

2012-2014: Initiator and co-organizer of the Technion international postdoc initiative (established the international postdoc office, special website, postdoc activities etc.)

DEPARTMENTAL ACTIVITIES

2022 : h-bar Student science club organizer

2018-2019: Physics colloquium organizer

2013-2017: Chair, Physics honors program

2013-2017: Board member, Physics honors program

2013-2014: Board member and Technion representative, Israel physical society

2012-2014: Member, Physics international-students committee

2012-2014: Astrophysics seminar organizer

PUBLIC PROFESSIONAL ACTIVITIES

1. Journal referee for all of the leading astrophysics and interdisciplinary journals (21 journals)
2. Israel Physical Society auditor, 2022-2024
3. 2010-2023 Grant proposal referee for the national and international science foundations research proposals (9 science agencies)
4. Israeli Young Academy subcommittees member (2018-2022: members selection, women academic advancement, multidisciplinary science; and ultra-orthodox inclusion committees)
5. Board member, Israel physical society, 2013-2014
6. Israel Physical Society conference, Astrophysics session chair and organizer: 2012, 2015, 2017, 2018
7. Advisory board member, Lifeboat foundation, 2012-
8. Member, NASA "Origins program" theory panel review, 2011
9. Member, ITC post-doc hiring committee (Harvard-Smithsonian CfA), 2011
10. Member, ITC visitors and colloquium committee (Harvard-Smithsonian CfA), 2010-2012
11. Co-organizer, ITC Planet formation seminar series (Harvard-Smithsonian CfA), Spring 2009
12. Co-organizer, ITC Supernovae seminar series (Harvard-Smithsonian CfA), Fall 2010
13. Co-organizer, ITC Galaxy structure and evolution seminar series, (Harvard-Smithsonian CfA), Spring 2011
14. Member, Harvard-Smithsonian CfA postdocs committee, 2010
15. Astrophysics journal club organizer, Weizmann Institute of Science, 2005-2006

MEMBERSHIP IN PROFESSIONAL SOCIETIES AND COLLABORATIONS

Israel Young Academy (2018-2022)

European Astrophysical Society (EAS)

Israel physics society (IPS)

International Astronomical Union (IAU)

Kavli frontiers for young PIs (2013)

Minerva center for life under extreme planetary conditions, co-founder and member

ULTRASAT space mission science working-group member (SNe, GWs, TDEs); leading the study of type Ia supernova circumstellar matter interactions (2022-)

GRADUATE STUDENTS

Completed PhD Theses

1. **Adrian S. Hamers (PhD)**, 2013-2016, "Hierarchical systems"; supervisors **Simon Portegies-Zwart (Leiden University; supervisor)** and **Hagai Perets (co-supervisor)**. His PhD thesis won the international Astronomical Union prize for PhD thesis, won prize fellowship in IAS Princeton, was a group leader in Max Planck and now moved moved to industry.
2. **Danor Aharon (PhD)**, 2012-2016, "Stellar dynamics near massive black holes in nuclear stellar clusters", **supervisor Hagai Perets**; Now works in a start-up company.
3. **Erez Michaely (PhD)**, 2012-2017, "Triple evolution and dynamics of stellar and planetary systems", **supervisor Hagai Perets**. won the CTC prize fellowship in Maryland, now a postdoc in UCLA.
4. **Evgeni Grishin (PhD)** 2016-2020, **supervisor Hagai Perets**, now a postdoc in Monash university (declined a prize fellowship in CITA, Canada)
5. **Yossef Zenati (PhD)** 2016-2020, won both PhD and postdoc prize fellowships for outstanding Arab minority students/postdocs **supervisor Hagai Perets**, now a prize fellow in John Hopkins university
6. **Yael Raveh (PhD)**, 2018-2022, **supervisor Hagai Perets**, "Dynamical origins of Gravitational waves sources"; now works in industry.

7. Yonadav Barry Ginat (PhD; Adams prize fellow) 2018-2023, co-supervised with Vincent Desjaques, “Stellar and cosmological gravitational wave sources; now a prize fellow at Oxford, UK

Completed MSc theses

1. Matias Rotenberg (MSc), 2012-2015, “Planet-planet scattering and the dynamical evolution of planetary systems”; supervisor Hagai Perets. Now working in Industry (Facebook, Israel)
2. Evgeni Grishin (MSc), 2013-2015, “The role of gas dynamical friction in planet formation” (continued to PhD with me)
3. Roi Rahin (MSc), 2013-2015, “Origin of regular and irregular moons of gas-giants”, later an astronomy PhD student at the Technion, and now a postdoc at NASA Ames .
4. Diego Mikhailof (MSc), 2016-2018, “Evolution of stellar disks around massive black holes”. Working in the high-tec industry
5. Hila Glanz (MSc), 2016-2019, “Dynamics of common envelope evolution”, now a PhD student in my group.

PhD these in progress

1. Hila Glanz (PhD), common envelope evolution and supernovae, 2019-2024 (expected) (VATAT national prize scholar)
2. Mor Rozner (PhD), planetary and stellar dynamics, 2019-2024 (expected) (Azrieli national prize scholar)

MSc these in progress

1. Itay Weintraub, 2021-2024 (expected)
2. Elad Yitzhaki, 2021-2023 (expected)
3. Amalia Garmi, 2021-2023 (expected)
4. Yoav Zack, 2023-2024 (expected)
5. Ilan Kamai, 2023-2024 (expected)

SUPERVISED POST-DOCS AND RESEARCH ASSOCIATES

1. Alessandra Mastrobuono-Battisti (Davis prize fellow at Technion), 2012-2015, Won a prize fellowship at the Max Planck Institute in Heidelberg, then a postdoc in Lund, since 2021 a Marie Curie prize fellow in France
2. Curtis Saxton, 2015-2016; now working as a staff scientist in Leicester, UK
3. Oded Papish, 2016 (now working in the industry)
4. Uri Malamud (Ramon prize fellow at Technion), 2015-2019; now a research associate in my group 2020-
5. Serena Repetto, 2016-2017 (now working in education)
6. Diego Munoz, 2016-2017 (now an assistant Prof. in Chile)
7. Silvia Toonen, 2016 (now an assistant Prof. In Amsterdam, Netherlands)
8. Andrei Igoshev, 2018-2019 (Now a postdoc in the UK)
9. Alexei Bobrick, 2021-
10. Aleksey Generozov (Zuckerman prize fellow at Technion), 2021-
11. Stefano Catolico, 2022-2023
12. Amir Michaelis, 2022-
13. Uri Malamud (Research associate), 2020-
14. Yael Hilman (Research associate), 2023-

RESEARCH GRANTS

Grants

1. **2022-2025, Israel ministry of innovation ,technology and science; Asteroids and comets and the connection to the HERA mission, 570K NIS.**
2. **2020-2023, Lower-Saxony (Niedersachsen)– Israel bi-national grants, 300K Euro; PIs Hagai Perets (Israel) & Jurgen Blum (Germany)**
3. **2020-2025, European Union ERC consolidator grant (project SNEX), PI Perets, 2 Million Euros**
4. **2013-2024 , Minerva center for life under extreme physical conditions; 1.5M Euro**
PIs: Oded Aharonson (WIS), **Hagai Perets (Technion)**, Itai Levi (WIS), Doron Lancet (WIS) and Aharon Oren (HUJI) + personal equipment grant (**PI Perets**), 40K Euro (2014)
5. **2014-2018, Lower-Saxony (Niedersachsen)– Israel bi-national grants, 300K Euro; PIs Perets & Sonja Schuh (U. of Gotttingen, Germany)**
6. **2014, Minerva ; PI Perets**
7. **2013-2016, Marie Curie Career Integration Grant, FP7 program ; 100K Euro ; PI Perets**
8. **BIKURA (ISF): 40K NS (2012); PI Perets**
9. **2013, BSF grant; 148K \$ (2013-2017); PIs Perets & Matthew Holman (Senior astronomer in the Harvard-Smithsonian center for astrophysics).**
10. **2013, I-CORE (PI Piran; HUJI) young PI personal grant (180K NS x 5 yrs) + 180K one time equipment grant (2013); PI of young investigator grant: Perets**
11. **Asher space center grants, Technion (2015, 2017, 2018): Total of 30K \$.**

Industrial and other non-academic grants:

1. **2018, RAFAEL industries, 75K NIS, Pis Perets & Sagi, E.**

PUBLICATIONS

Theses

MSc thesis: “Formation of molecular hydrogen on interstellar dust”, 2004; supervisor Ofer Biham, Hebrew University in Jerusalem

PhD thesis: “Dynamics near central massive objects”, 2009; supervisor Tal Alexander, Weizmann Institute of Science

Refereed papers in professional journals/books

Underlined are my students/post-docs. Interdisciplinary journals marked in underlined bold

1. **Lipshtat A., Perets H. B., Balaban N. Q., Biham O., Modeling of negative autoregulated genetic networks in single cells, Gene, 347, 265, 2005**
2. **Perets H.B., Biham O., Manic G., Pirronello V., Roser J., Swords S., Vidali G. Molecular Hydrogen Formation on Ice Under Interstellar Conditions, The Astrophysical Journal, 627, 850, 2005**
3. **Perets H.B., Biham O. Molecular hydrogen formation on porous dust grains, Monthly Notices of the Royal Astronomical Society, 365, 801, 2006**
4. **Vidali G., Pirronello V., Li L., Roser J., Manico G., Mehl R., Lederhendler A., Perets H.B., Brucato J.R., Biham O. Molecular Hydrogen Formation on Low Temperature Surfaces in Temperature Programmed Desorption Experiments, Journal of Physical Chemistry A, 111, 12611, 2007**

5. **Perets H.B.**, Hopman C., Alexander T. Massive Perturber-driven Interactions between Stars and a Massive Black Hole, *The Astrophysical Journal*, 656, 709, **2007**
6. **Perets H.B.**, Lederhendler A., Biham O., Vidali G., Li L., Swords S., Congiu E., Roser J., Manic G., Brucato J.R., Pirronello V. Molecular Hydrogen Formation on Amorphous Silicates under Interstellar Conditions, *The Astrophysical Journal*, 661, L163, **2007**
7. **Perets H.B.**, Alexander T. Massive Perturbers and the Efficient Merger of Binary Massive Black Holes, *The Astrophysical Journal*, 677, 146, **2008**
8. **Perets H. B.**, Lahini Y., Pozzi F., Sorel M., Morandotti R., Silberberg Y., Realization of Quantum Walks with Negligible Decoherence in Waveguide Lattices, *Physical Review Letters*, 100, 170506, **2008**
9. Wu X., Famaey B., Gentile G., **Perets H.**, Zhao H. Milky Way potentials in cold dark matter and MODified Newtonian Dynamics. Is the Large Magellanic Cloud on a bound orbit?, *Monthly Notices of the Royal Astronomical Society*, 386, 2199, **2008**
10. **Perets H.B.** Dynamical and Evolutionary Constraints on the Nature and Origin of Hypervelocity Stars, *The Astrophysical Journal*, 690, 795, **2009**
11. Amir A., Lahini Y., **Perets H. B.**, Classical diffusion of a quantum particle in a noisy environment, *Physical Review E*, 79, 050105, **2009**
12. **Perets H.B.**, Fabrycky D.C. On the Triple Origin of Blue Stragglers, *The Astrophysical Journal*, 697, 1048, **2009**
13. Bartko H., Martins F., Fritz T.K., Genzel R., Levin Y., **Perets H.B.**, Paumard T., Nayakshin S., Gerhard O., Alexander T., Dodds-Eden K., Eisenhauer F., Gillessen S., Mascetti L., Ott T., Perrin G., Pfuhl O., Reid M.J., Rouan D., Sternberg A., Trippe S. Evidence for Warped Disks of Young Stars in the Galactic Center, *The Astrophysical Journal*, 697, 1741, **2009**
14. **Perets H.B.**, Wu X., Zhao H.S., Famaey B., Gentile G., Alexander T. The Galactic Potential and the Asymmetric Distribution of Hypervelocity Stars, *The Astrophysical Journal*, 697, 2096, **2009**
15. **Perets H.B.** Runaway and Hypervelocity Stars in the Galactic Halo: Binary Rejuvenation and Triple Disruption, *The Astrophysical Journal*, 698, 1330, **2009**
16. **Perets H.B.**, Naoz S. Kozai Cycles, Tidal Friction, and the Dynamical Evolution of Binary Minor Planets, *The Astrophysical Journal*, 699, L17, **2009**
17. **Perets H.B.**, Gualandris A., Kupi G., Merritt D., Alexander T. Dynamical Evolution of the Young Stars in the Galactic Center: N-body Simulations of the S-Stars, *The Astrophysical Journal*, 702, 884, **2009**
18. Li L., Zhao H., Vidali G., Frank Y., Lohmar I., **Perets H. B.**, Biham O., Interaction of Atomic and Molecular Hydrogen with Tholin Surfaces at Low Temperatures, *Journal of Physical Chemistry A*, 114, 10575, **2010**

19. Bartko H., Martins F., Trippe S., Fritz T.K., Genzel R., Ott T., Eisenhauer F., Gillessen S., Paumard T., Alexander T., Dodds-Eden K., Gerhard O., Levin Y., Mascetti L., Nayakshin S., **Perets H.B.**, Perrin G., Pfuhl O., Reid M.J., Rouan D., Zilka M., Sternberg A. An Extremely Top-Heavy Initial Mass Function in the Galactic Center Stellar Disks, *The Astrophysical Journal*, 708, 834, **2010**
20. **Perets H.B.**, Gal-Yam A., Mazzali P.A., Arnett D., Kagan D., Filippenko A.V., Li W., Arcavi I., Cenko S.B., Fox D.B., Leonard D.C., Moon D.-S., Sand D.J., Soderberg A.M., Anderson J.P., James P.A., Foley R.J., Ganeshalingam M., Ofek E.O., Bildsten L., Nelemans G., Shen K.J., Weinberg N.N., Metzger B.D., Piro A.L., Quataert E., Kiewe M., Poznanski D. A faint type of supernova from a white dwarf with a helium-rich companion, *Nature*, 465, 322, **2010**
21. **Perets H.B.**, Gualandris A. Dynamical Constraints on the Origin of the Young B-stars in the Galactic Center, *The Astrophysical Journal*, 719, 220, **2010**
22. Naoz S., **Perets H.B.**, Ragozzine D. The Observed Orbital Properties of Binary Minor Planets, *The Astrophysical Journal*, 719, 1775, **2010**
23. **Perets H.B.** Binary Planetesimals and Their Role in Planet Formation, *The Astrophysical Journal*, 727, LL3, **2011**
24. **Perets H.B.**, Gal-yam A., Crockett R.M., Anderson J.P., James P.A., Sullivan M., Neill J.D., Leonard D.C. The Old Environment of the Faint Calcium-rich Supernova SN 2005cz, *The Astrophysical Journal*, 728, LL36, **2011**
25. **Perets H.B.**, Badenes C., Arcavi I., Simon J.D., Gal-yam A. An Emerging Class of Bright, Fast-evolving Supernovae with Low-mass Ejecta, *The Astrophysical Journal*, 730, 89, **2011**
26. **Perets H.B.**, Murray-Clay R.A. Wind-shearing in Gaseous Protoplanetary Disks and the Evolution of Binary Planetesimals, *The Astrophysical Journal*, 733, 56, **2011**
27. Waldman R., Sauer D., Livne E., **Perets H.**, Glasner A., Mazzali P., Truran J.W., Gal-Yam A. Helium Shell Detonations on Low-mass White Dwarfs as a Possible Explanation for SN 2005E, *The Astrophysical Journal*, 738, 21, **2011**
28. McKernan B., Ford K.E.S., Lyra W., **Perets H.B.**, Winter L.M., Yaqoob T. On rapid migration and accretion within discs around supermassive black holes, *Monthly Notices of the Royal Astronomical Society*, 417, L103, **2011**
29. **Perets H.B.**, Kouwenhoven M.B.N. On the Origin of Planets at Very Wide Orbits from the Recapture of Free Floating Planets, *The Astrophysical Journal*, 750, 83, **2012**
30. **Perets H.B.**, Subr L. The Properties of Dynamically Ejected Runaway and Hyper-runaway Stars, *The Astrophysical Journal*, 751, 133, **2012**
31. Kratter K.M., **Perets H.B.** Star Hoppers: Planet Instability and Capture in Evolving Binary Systems, *The Astrophysical Journal*, 753, 91, **2012**
32. Kasliwal M.M., Kulkarni S.R., Gal-Yam A., Nugent P.E., Sullivan M., Bildsten L., Yaron O., **Perets H.B.**, Arcavi I., Ben-Ami S., Bhallerao V.B., Bloom J.S., Cenko S.B., Filippenko A.V.,

Frail D.A., Ganeshalingam M., Horesh A., Howell D.A., Law N.M., Leonard D.C., Li W., Ofek E.O., Polishook D., Poznanski D., Quimby R.M., Silverman J.M., Sternberg A., Xu D. Calcium-rich Gap Transients in the Remote Outskirts of Galaxies, *The Astrophysical Journal*, 755, 161, **2012**

33. Antonini E., **Perets H.B.** Secular Evolution of Compact Binaries near Massive Black Holes: Gravitational Wave Sources and Other Exotica, *The Astrophysical Journal*, 757, 27, **2012**
34. McKernan B., Ford K.E.S., Lyra W., **Perets H.B.** Intermediate mass black holes in AGN discs - I. Production and growth, *Monthly Notices of the Royal Astronomical Society*, 425, 460, **2012**
35. **Perets H.B.**, Kratter K.M. The Triple Evolution Dynamical Instability: Stellar Collisions in the Field and the Formation of Exotic Binaries, *The Astrophysical Journal*, 760, 99, **2012**
36. Jordan G.C., IV, **Perets H.B.**, Fisher R.T., van Rossum D.R. Failed-detonation Supernovae: Subluminous Low-velocity Ia Supernovae and their Kicked Remnant White Dwarfs with Iron-rich Cores, *The Astrophysical Journal*, 761, LL23, **2012**
37. Gualandris A., Mapelli M., **Perets H.B.** Eccentric disc instability in stellar discs formed from inspiralling gas clouds in the Galactic Centre, *Monthly Notices of the Royal Astronomical Society*, 427, 1793, **2012**
38. Leigh N., Knigge C., Sills A., **Perets H.B.**, Sarajedini A., Glebbeek E. The origins of blue stragglers and binarity in globular clusters, *Monthly Notices of the Royal Astronomical Society*, 428, 897, **2013**
39. **Perets H.B.**, Kenyon S.J. Wind-accretion Disks in Wide Binaries, Second-generation Protoplanetary Disks, and Accretion onto White Dwarfs, *The Astrophysical Journal*, 764, 169, **2013**
40. Leigh N.W.C., Boker T., Maccarone T.J., **Perets H.B.** Gas depletion in primordial globular clusters due to accretion on to stellar-mass black holes, *Monthly Notices of the Royal Astronomical Society*, 429, 2997, **2013**
41. Drout M.R., Soderberg A.M., Mazzali P.A., Parrent J.T., Margutti R., Milisavljevic D., Sanders N.E., Chornock R., Foley R.J., Kirshner R.P., Filippenko A.V., Li W., Brown P.J., Cenko S.B., Chakraborti S., Challis P., Friedman A., Ganeshalingam M., Hicken M., Jensen C., Modjaz M., **Perets H.B.**, Silverman J.M., Wong D.S. The Fast and Furious Decay of the Peculiar Type Ic Supernova 2005ek, *The Astrophysical Journal*, 774, 58, **2013**
42. Lyman J.D., James P.A., **Perets H.B.**, Anderson J.P., Gal-Yam A., Mazzali P., Percival S.M. Environment-derived constraints on the progenitors of low-luminosity Type I supernovae, *Monthly Notices of the Royal Astronomical Society*, 434, 527, **2013**
43. Payne M.J., Deck K.M., Holman M.J., **Perets H.B.** Stability of Satellites in Closely Packed Planetary Systems, *The Astrophysical Journal*, 775, LL44, **2013**

44. Mastrobuono-Battisti A., **Perets H.B.** Evolution of Second-generation Stars in Stellar Disks of Globular and Nuclear Clusters: Ω ; Centauri as a Test Case, *The Astrophysical Journal*, 779, 85, **2013**
45. Madigan A.-M., Pfuhl O., Levin Y., Gillessen S., Genzel R., **Perets H.B.** On the Origin of the B-stars in the Galactic Center, *The Astrophysical Journal*, 784, 23, **2014**
46. **Perets H.B.**, Mastrobuono-Battisti A. Age and Mass Segregation of Multiple Stellar Populations in Galactic Nuclei and their Observational Signatures, *The Astrophysical Journal*, 784, LL44, **2014**
47. Leigh N.W.C., Mastrobuono-Battisti A., **Perets H.B.**, Boker T. Stellar dynamics in gas: the role of gas damping, *Monthly Notices of the Royal Astronomical Society*, 441, 919, **2014**
48. Michael E., **Perets H.B.** Secular Dynamics in Hierarchical Three-body Systems with Mass Loss and Mass Transfer, *The Astrophysical Journal*, 794, 122, **2014**
49. Mastrobuono-Battisti A., **Perets H.B.**, Loeb A. Effects of Intermediate Mass Black Holes on Nuclear Star Clusters, *The Astrophysical Journal*, 796, 40, **2014**
50. Prodan S., Antonini F., **Perets H. B.**, Secular Evolution Of Binaries Near Massive Black Holes: Formation of compact binaries, merger/collision products and G2-like objects, *The astrophysical Journal*, 799, 118, **2015**
51. Aharon D., **Perets H. B.**, Formation and evolution of nuclear star clusters with in-situ star-formation: Nuclear cores and age segregation, *The astrophysical Journal*, 799, 185, **2015**
52. Mazeh T., **Perets H. B.**, McQuillan A. Photometric Amplitude Distribution of Stellar Rotation of Kepler KOIs — Indication for Spin-Orbit Alignment of Cool Stars, *The astrophysical Journal*, **2015**
53. Hamers, A., **Perets, H. B.**, Antonini F., Portugies-Zwart, S., “Secular dynamics of hierarchical quadruple systems: the case of a triple system orbited by a fourth body”, *Monthly Notices of the Royal Astronomy Society*, 449, 42221, **2015**
54. Mastrobuono-Battisti, A. , **Perets H. B.** & Raymond S. The origin of the composition similarity of the Earth-Moon system, *Nature*, april **2015**
55. Grishin, E., **Perets, H. B.**, Application of Gas Dynamical Friction for Planetesimals. I. Evolution of Single Planetesimals, *The Astrophysical Journal*, 811, 54, **2016**
56. Hamers, A. S., **Perets, H. B.**, Portegies Zwart, S. F., A triple origin for the lack of tight coplanar circumbinary planets around short-period binaries, *Monthly Notices of the Royal Astronomy Society*, 455, 3180, **2016**
57. Grishin, E., **Perets, H. B.**, Application of Gas Dynamical Friction for Planetesimals.II. Evolution of Binary Planetesimals, *The Astrophysical Journal*, 820, 106, **2016**
58. Papish, O., **Perets, H. B.**, Supernovae from Direct Collisions of White Dwarfs and the Role of Helium Shell Ignition, *The Astrophysical Journal*, 822, 19, **2016**

59. Mastrobuono-Battisti, A.; **Perets, H. B.**, Second-generation Stellar Disks in Dense Star Clusters and Cluster Ellipticities, *The Astrophysical Journal*, 823, 16, **2016**
60. **Perets, H. B.**; Li, Zhuo; Lombardi, James C., Jr.; Milcarek, Stephen R., Jr., Micro-tidal Disruption Events by Stellar Compact Objects and the Production of Ultra-long GRBs, *The Astrophysical Journal*, 823, 113, **2016**
61. Aharon, D.; Mastrobuono Battisti, A.; **Perets, H. B.**, The History of Tidal Disruption Events in Galactic Nuclei, *The Astrophysical Journal*, 823, 137, **2016**
62. Michaely, E.; **Perets, H. B.**, Tidal capture formation of low-mass X-ray binaries from wide binaries in the field, *Monthly Notices of the Royal Astronomy Society*, 458, 4188, **2016**
63. Aharon, D.; **Perets, H. B.**, The impact of mass segregation and star-formation on the rates of gravitational-wave sources from extreme mass ratio inspirals, *The Astrophysical Journal Letters*, 830, L1, **2016**
64. Hamers, A. S.; Antonini, F.; Lithwick, Y.; **Perets, H. B.**; Portegies Zwart, S. F., Secular dynamics of multiplanet systems: implications for the formation of hot and warm Jupiters via high-eccentricity migration, *Monthly Notices of the Royal Astronomy Society*, 464, 688, **2017**
65. Tsatsi, Mastrobuono-Battisti, van de Ven, **Perets**, Bianchini, Neumayer, On the rotation of nuclear clusters formed by cluster-inspirals, *Monthly Notices of the Royal Astronomy Society*, 464, 372, **2017**
66. Mikhaloff, D. N.; **Perets, H. B.**, Short and long term evolution of a stellar disk around a massive black hole: The role of binaries, the cusp and stellar evolution, *Monthly Notices of the Royal Astronomy Society*, 465, 281, **2017**
67. Michaely, E.; **Perets, H. B.**; Grishin, E., On the existence of regular and irregular outer moons orbiting the Pluto-Charon system, *The Astrophysical Journal*, 836, 27, **2017**
68. Grishin, E., **Perets, H. B.**, Zenati, Y. and Michaely, E., Generalized Hill-Stability Criteria for Hierarchical Three-Body Systems at Arbitrary Inclination, *Monthly Notices of the Royal Astronomy Society*, 466, 246, **2017**
69. Rufo, R., Aaronson, O. & **Perets, H. B.**, A Multiple Impact Hypothesis for Moon Formation, **Nature Geoscience**, 10, 89, **2017**
70. Blasberger, A., Behar, E., **Perets, H. B.**, Brosch, N., & Tielens, A. G. G. N, Evidence Linking Interstellar UV Absorption to PAH Molecules, *The Astrophysical Journal*, 836, 173, **2017**
71. Malamud, U. & **Perets, H. B.**; Schubert, Gerald, The Contraction/Expansion History of Charon with implication for its Planetary Scale Tectonic Belt, *Monthly Notices of the Royal Astronomy Society*, 468, 1056, **2017**
72. Mastrobuono-Battisti, A. & **Perets, H. B.**, The composition of Solar system asteroids and Earth/Mars moons, and the Earth-Moon composition similarity, *Monthly Notices of the Royal Astronomy Society*, 469, 3567, **2017**
73. Malamud, U. & **Perets, H. B.**, Post main sequence evolution of icy minor planets II: water retention and white dwarf pollution around massive progenitor stars, *The Astrophysical Journal*, 842, 67, **2017**

74. Malamud, U.; **Perets, H. B.**, Post-main-sequence evolution of icy minor planets. III. water retention in dwarf planets and exo-moons and implications for white dwarf pollution, *The Astrophysical Journal*, 849, 8, **2017**
75. Saxton, C., **Perets, H. B.** & Baskin, A., Spectral features of tidal-disruption candidates and alternative origins for such transient flares, *Monthly Notices of the Royal Astronomy Society*, 474, 3307; **2018**
76. Toonen, S.; Perets, H. B.; Hamers, A. S., The rate of WD-WD head-on collisions in isolated triples is too low to explain standard type Ia supernovae, *Astronomy & Astrophysics*, 610, A22, 7; **2018**
77. Grishin, E., Lai, D. **Perets, H. B.**, Chaotic quadruple secular evolution and the production of misaligned exomoons and Warm Jupiters in stellar multiples, *Monthly Notices of the Royal Astronomy Society*, 474, 3547; **2018**
78. Michaely, E. & **Perets, H. B.**, Supernova and prompt gravitational-wave precursors to LIGO gravitational-wave sources and short-GRBs, *The Astrophysical Journal Letters*, 855, L12; **2018**
79. Hamers, Adrian S. & **Perets, H. B.**, Relaxation near supermassive black holes driven by nuclear spiral arms: anisotropic hypervelocity stars, S-stars and tidal disruption events, *The Astrophysical Journal*, 846, 123, **2018**
80. Glanz, H.; **Perets, H. B.**, Efficient common-envelope ejection through dust-driven winds, *Monthly Notices of the Royal Astronomy Society Letters*, 478, 12, **2018**
81. Rosenthal, M. M.R. Murray-Clay, **Perets, H. B.** and Wolansky N., Gas-assisted growth of protoplanets in a turbulent medium , *The Astrophysical Journal*, 86 1, 78, **2018**
82. Toonen, S.; **Perets, H. B.**; Igoshev, A. P.; Michaely, E.; Zenati, Y., The demographics of neutron star - white dwarf mergers: rates, delay-time distributions and progenitors, *Astronomy & Astrophysics*, 619, 53, **2018**
83. Citron, R., **Perets, H. B.** and Aharonson, The role of multiple giant impacts in the formation of the Earth-Moon system, *The Astrophysical Journal*, 862, 5, **2018**
84. Malamud, U., **Perets, H. B.**, Schäfer C. and Burger, C., Moonfalls: Collisions between the Earth and its past moons, *Monthly Notices of the Royal Astronomy Society*, 479, 1175, **2018**
85. Grishin, E., **Perets, H. B.** and Fragione, G. , Quasi-secular evolution of mildly hierarchical triple systems: analytics and applications for GW sources and hot Jupiters, *Monthly Notices of the Royal Astronomical Society*, Volume 481, Issue 4, p.4907, **2018**
86. Munoz, D. & **Perets, H. B.**, Statistical Trends in the Obliquity Distribution of Exoplanet Systems, *The Astronomical Journal*, 156, 253, **2018**
87. Zenati, Y.; Toonen, S.; **Perets, H. B.**, Formation and evolution of hybrid He-CO white dwarfs and their properties, *Monthly Notices of the Royal Astronomy Society*, 482, 1135, **2019**
88. Zenati, Y.; **Perets, H. B.** & Toonen, S., Neutron star - white dwarf mergers: Early evolution, physical properties, and outcomes, *Monthly Notices of the Royal Astronomy Society*, 486, 1805, **2019**

89. Michaely, E. & Perets, H. B., Constraints on the common-envelope evolution process from wide triple systems, *Monthly Notices of the Royal Astronomy Society*, 484, 4711, **2019**
90. Igoshev, A. P. and Perets, H. B., Wide binary companions to massive stars and their use in constraining natal kicks, *Monthly Notices of the Royal Astronomy Society*, 486, 4098, **2019**
91. Grishin, E., Perets, H. B. and Avni, Y. , Planet seeding and lithopanspermia through gas-assisted capture of interstellar objects, *Monthly Notices of the Royal Astronomy Society*, 487, 3324, **2019**
92. Fragione, G., Grishin, E. , Leigh, N., Perets, H. B. & Perna R., *Monthly Notices of the Royal Astronomy Society*, 488, 47, **2019**
93. Michaely, E. & Perets, H. B., Gravitational-wave sources from mergers of binary black-holes catalyzed by fly-bys interactions, *The Astrophysical Journal*, 887, 36, **2019**
94. Star formation at the Galactic Centre: coevolution of multiple young stellar discs, Mastrobuono-Battisti, A. & Perets, H. B., Gualandris, A., Neumayer, N. & Sippel, A. C. *Monthly Notices of the Royal Astronomy Society*, 490, 5820, **2019**
95. Malamud, U., Perets, H. B., Schäfer C. and Burger, C. Collisional formation of detectable exomoons of super-terrestrial exoplanets, *Monthly Notices of the Royal Astronomy Society*, 492, 5089, **2020**
96. Ginat, Y. B., Perets, H. B., Glanz, H., Grishin, E., Desjacques, V., Gravitational waves from inspirals of compact objects in binary common-envelope evolution, *Monthly Notices of the Royal Astronomy Society*, 493, 4861, **2020**
97. Grishin, E., Malamud, E., Perets, H. B., Schäfer C. and Burger, C. , The wide-binary origins of Arrokoth Kuiper-belt binary, *Nature*, 580, 463, **2020**
98. Zenati, Y., Bobrick A. & Perets, H. B. Faint rapid red transients from Neutron star - CO white-dwarf merger, *Monthly Notices of the Royal Astronomy Society*, 493, 3956, **2020**
99. Malamud, U., Perets, H. B. Tidal disruption of planetary bodies by white dwarfs I: A hybrid SPH-analytical approach, , *Monthly Notices of the Royal Astronomy Society*, 492, 5561, **2020**
100. Stone, N. C.; Vasiliev, E.; Kesden, M.; Rossi, E. M.; Perets, H. B.; Amaro-Seoane, P., Rates of Stellar Tidal Disruption, *Space Science Reviews*, 216, 35, **2020**
101. Malamud, U., Perets, H. B. Tidal disruption of planetary bodies by white dwarfs II: Debris disk structure and ejected interstellar asteroids, *Monthly Notices of the Royal Astronomy Society*, , **2020**
102. Igoshev, A. P. , Perets, H. B. & Michaely, E. Inferred timescales for common envelope ejection using wide astrometric companions, *Monthly Notices of the Royal Astronomy Society*, 494, 1448, **2020**
103. Rozner, M., Grishin, E. & Perets, H. B., The aeolian-erosion barrier for the growth of metre-size objects in protoplanetary-discs, *Monthly Notices of the Royal Astronomy Society*, 496, 8247, **2020**
104. Ginat, Y. B., Desjacques, Vincent, Reischke, Robert, Perets, H. B., The Probability Distribution of Astrophysical Gravitational-Wave Background Fluctuations, , *Physical Review D*, 102, 083501, **2020**

- 105.** Grishin, E., Rosner, M. & Perets, H. B., Erosion-driven Size Redistribution of Protoplanetary Disk Solids and the Onset of Streaming Instability and Pebble Accretion, *The Astrophysical Journal Letters*, 898, L13, **2020**
- 106.** Rozner, M., Grishin, E. & Perets, H. B., The Wide-Binary Origin of The Pluto-Charon, System, *Monthly Notices of the Royal Astronomy Society*, 497, 5264, **2020**
- 107.** Jacobson-Galan, W. ... **Perets, H. B. et al.** , SN 2019ehk: A Double-peaked Ca-rich Transient with Luminous X-Ray Emission and Shock-ionized Spectral Features, *The Astrophysical Journal*, 898, 166, **2020**
- 108.** Michaely, E. & **Perets, H. B.** High rate of gravitational waves mergers from flyby perturbations of wide black-hole triples in the field, *Monthly Notices of the Royal Astronomy Society*, 498, 4924, **2020**
- 109.** Zenati, Y. Siegel, D. M., Metzger, B. D. & **Perets, H. B.**, Nuclear Burning in Collapsar Accretion Disks, *Monthly Notices of the Royal Astronomy Society*, 499, 4097. **2020**
- 110.** Glanz, H.; **Perets, H. B.**, Simulations of common envelope evolution in triple systems: Circumstellar case, *Monthly Notices of the Royal Astronomy Society*, 500, 1921, **2021**
- 111.** Raveh, Y. & **Perets, H. B.**, Extreme mass-ratio gravitational-wave sources: Mass segregation and post binary tidal-disruption captures, *Monthly Notices of the Royal Astronomy Society*, 501, 5012, **2021**
- 112.** Rozner, M., Veras, D. & **Perets, H. B.**, Rapid destruction of planetary debris around WDs through wind erosion, *Monthly Notices of the Royal Astronomy Society*, 502, 5176, **2021**.
- 113.** Wenbin Lu, Fuller, J., Raveh, Y., **Perets H. B.**, Li, T. S., Hosek, M. Do, T., The former companion of the hyper-velocity star S5-HVS1, *Monthly Notices of the Royal Astronomy Society*, in press, **2021**
- 114.** Jacobson-Galan, W. ... **Perets, H. B. et al.** , Late-time Observations of Calcium-rich Transient SN 2019ehk Reveal a Pure Radioactive Decay Power Source, *The astrophysical Journal Letters*, 908, 32, **2021**
- 115.** Pakmor, Ruediger, Zenati, Y., **Perets, H. B.** , Toonen, S., Thermonuclear explosion of a massive hybrid HeCO white-dwarf triggered by a He-detonation on a companion, *Monthly Notices of the Royal Astronomy Society*, 503, 473, **2021**
- 116.** **Perets, H. B.** & Beniamini, P., No velocity-kicks are required to explain large-distance offsets of Ca-rich supernovae and short-GRBs, *Monthly Notices of the Royal Astronomy Society*, 503, 599, **2021**
- 117.** Mastrobuono-Battisti, A. & Perets, H. B., Linking globular cluster structural parameters and their evolution: multiple stellar populations, *Monthly Notices of the Royal Astronomy Society*, 505, 2548, **2021**
- 118.** Zabludoff, A., Arcavi, I., La Massa, S. **Perets, H. B.** et al., Distinguishing Tidal Disruption Events from Impostors, *Space Science Reviews*, 217, 54, **2021**

119. Raveh, Y., Ginat, Y. B., **Perets, H. B.**; Woods, T. E., Probing supermassive stars and massive black hole seeds through gravitational wave inspirals, Monthly Notices of the Royal Astronomy Society, 505, 3944, **2021**
120. Grishin, E. & **Perets, H. B.**, Catalyzed lithopanspermia through disk capture of biologically-active interstellar material, book chapter in “Planet formation and panspermia”, pp. 125-147, Edited by B. Vukotic, Joseph Seckbach and Richard Gordon, Published by John Wiley & Sons, Ltd, **2021**
121. Ginat, Y. B., and **Perets, H. B.**, An Analytical, Statistical Solution of Dissipative and non-Dissipative Binary-Single Stellar Encounters, Physical Review X, 11, 031020, **2021**
122. Grishin, E., Bobrick, A. Hirai, Y. Mandel, I. **Perets, H. B.**, Supernova explosions in active galactic nuclei discs, Monthly Notices of the Royal Astronomy Society, 507, 158, **2021**
123. Glanz, H.; **Perets, H. B.**, Common-envelope evolution of eccentric binaries, Monthly Notices of the Royal Astronomy Society, 507, 2659, **2021**
124. Ginat, Y. B., and **Perets, H. B.**, Binaries are softer than they seem: effects of an external potential on the scattering dynamics of binaries, Monthly Notices of the Royal Astronomy Society, 508, 190, **2021**
125. Weng, J. ; Zhou, P. ; Chen, Y. ; Leung, S. C. ; Toonen, S. ; **Perets, H. B.** ; Nomoto, K. ; Zenati, Y. ; Vink, J., 0.9 with Unusually High Calcium Abundance, The Astrophysical Journal, 924, 119, **2022**
126. Bobrick, A., Zenati, Y., **Perets, H. B.**, Davies, M. B., Church, R., Transients from ONe White-Dwarf - Neutron-Star/Black-Hole Mergers, Monthly Notices of the Royal Astronomy Society, 510, 3758, **2022**
127. Hamers, A., **Perets, H. B.**, Thompson, T. A. ; Neunteufel, P. Return of the TEDI: revisiting the Triple Evolution Dynamical Instability channel in triple stars, Monthly Notices of the Royal Astronomy Society, The Astrophysical Journal, 925, 178, **2022**
128. **Perets, H. B.**, “Compact objects formation, retention, and growth through accretion onto gas-embedded white-dwarfs/neutron-stars in gas-enriched globular-clusters”, The Astrophysical Journal Letters, 927, L23, **2022**
129. Moschella, M. Slone, O. ; Dror, J. A., Cantiello, M., **Perets, H. B.**, A Measurement of Stellar Surface Gravity Hidden in Radial Velocity Differences of Co-moving Stars, Monthly Notices of the Royal Astronomical Society, Volume 514, Issue 1, pp.1071-1076, **2022**
130. Rozner, M. ; Glanz, H. ; **Perets, H. B.** ; Grishin, E., Inflated Eccentric Migration of Evolving Gas-Giants: Accelerated Formation and Destruction of Hot and Warm Jupiters, The Astrophysical Journal, Volume 931, Issue 1, id.10, 15 pp. **2022**
131. Glanz, H. ; Rozner, M., **Perets, H. B.** ; Grishin, E., Inflated Eccentric Migration of Evolving Gas-Giants: Numerical methodology and basic concepts, The Astrophysical Journal, Volume 931, Issue 1, id.11, pp. **2022**
132. Generozov, A. & **Perets, H. B.**, Constraints on the origins of hypervelocity stars: velocity distribution, mergers and star-formation history, Monthly Notices of the Royal Astronomical Society, Volume 513, Issue 3, pp.4257-4266, **2022**

133. Grishin, E. & **Perets, H. B.** Chaotic dynamics of wide triples induced by galactic tides: a novel channel for producing compact binaries, mergers, and collisions, Monthly Notices of the Royal Astronomical Society, Volume 512, Issue 4, pp.4993-5009, **2022**
134. Raveh, Y., Michaely, E & **Perets, H. B.**, Detailed properties of gravitational-wave mergers from flyby perturbations of wide binary black holes in the field, Monthly Notices of the Royal Astronomical Society, Volume 514, Issue 3, pp.4246-4258, **2022**
135. Tiwari et al., The Late-Time Light Curves of Type Ia Supernovae: Confronting Models with Observations, Monthly Notices of the Royal Astronomical Society, Volume 515, Issue 3, pp.3703-3715i, **2022**
136. Niranjana et al., 3D Hydrodynamical Simulations of Helium-ignited Double-degenerate White Dwarf Mergers, The Astrophysical Journal Letters, Volume 932, Issue 2, L24, **2022**
137. Jacobson-Galan, V. W. et al., The Circumstellar Environments of Double-peaked, Calcium-strong Transients 2021gno and 2021inl, The Astrophysical Journal, Volume 932, Issue 1, id.58, **2022**
138. Rozner, M. and **Perets, H. B.** Binary Evolution, Gravitational-wave Mergers, and Explosive Transients in Multiple-population Gas-enriched Globular Clusters, The Astrophysical Journal, Volume 931, Issue 2, id.149, pp 13, **2022**
139. Malamud, U. et al., Are there any pristine comets? Constraints from pebble structure, Monthly Notices of the Royal Astronomical Society, Volume 514, Issue 3, pp.3366-3394, **2022**
140. Ginat, Y. B. and **Perets, H. B.** Analytic Modelling of Binary-Single Encounters: Non-Thermal Eccentricity Distribution and Gravitational-Wave Source Formation, Monthly Notices of the Royal Astronomical Society Letters, 519, 1, L15, **2023**
141. Igoshev, A., **Perets, H. B.** & Halkoun, N.; Hyper-runaway and hypervelocity white dwarf candidates in Gaia Data Release 3: possible remnants from Ia/Iax supernova explosions or dynamical encounters, Monthly Notices of the Royal Astronomical Society, 518, 4, 6223, **2023**
142. Kosakowski, D. ; Ugalino, M. I., Fisher, R., Graur, O., Bobrick, A., **Perets, H. B.** Using ^{44}Ti Emission to Differentiate Between Thermonuclear Supernova Progenitors, Monthly Notices of the Royal Astronomical Society Letters, 519, 1, L74, **2023**
143. Zenati, Y. ; **Perets, H. B.** ; Dessart, Luc ; Jacobson-Gal'an, W. V. ; Toonen, S. ; Rest, A.; The origins of Calcium-rich supernovae from disruptions of CO white-dwarfs by hybrid He-CO white-dwarfs, The Astrophysical Journal, in press, **2023**
144. Generozov, A. and **Perets, H. B.**, Capture of stars into gaseous discs around massive black holes: Alignment, circularization and growth, Monthly Notices of the Royal Astronomical Society, in press (2023)
145. Rozner, M., Generozov, A. and **Perets, H. B.**, Binary formation through gas-assisted capture and the implications for stellar, planetary and compact-object evolution, Monthly Notices of the Royal Astronomical Society, 521, 866-880, **2023**

146. Ginat, Y. B., Panamarev, T. Kocsis, B., **Perets, H. B.**; Resonant Dynamical Friction: Analytical Description, Monthly Notices of the Royal Astronomical Society, in press, **2023**
147. Rozner, M. and **Perets, H. B.**, Born to be wide: the distribution of wide binaries in the field and soft binaries in clusters, Monthly Notices of the Royal Astronomical Society, in press, **2023**
148. Generozov, A.; **Perets, H. B.**, A triple scenario for the formation of wide black-hole binaries such as Gaia BH1, The Astrophysical Journal, in press, **2024**

Under review

149. Glanz, H.; **Perets, H. B.**; Ruediger Pakmor, “SNe from WD collisions] {Thermonuclear explosion criteria for direct and indirect collisions of CO white dwarfs: a study of the impact-parameter threshold for detonation”, Monthly Notices of the Royal Astronomy Society Letters
150. Vynatheya, P.; Ryu, T.; Pakmor, R.; de Mink, S. E. & **Perets, H. B.**; Simulating the tidal disruption of stars by stellar-mass black holes using moving-mesh hydrodynamics, Monthly Notices of the Royal Astronomy Society
151. Cattolico, R. S.; **Perets, H. B.** ; Dynamical evolution of second-generation circumstellar/protoplanetary disks in evolved wide binary systems; Monthly Notices of the Royal Astronomy Society
152. Weng, J.; Zhou P.; **Perets, H. B.**, Wik, D. ; Chen, Y. ; No NuSTAR Detection of ^{44}Ti Decay Emission in Four Nearby Thermonuclear Supernova Remnants; Monthly Notices of the Royal Astronomy Society
153. Robinson, J. E., _ Opitom, C. **Perets, H. B.**, Blum, J.; A link between the size and composition of comets, Monthly Notices of the Royal Astronomy Society

CONFERENCES

Invited international conferences/workshops talks

1. "The three body problem: a statistical analytical solution", "The three body problem" conference, Hebrew university in Jerusalem , Israel, October 8th -12th 2023, , October 8th -12th 2023 (postponed due to the war)
2. "Accretion, multiple-captures and super-scattering of stars and compact objects embedded in gas", [NBIA Workshop on Black Hole Dynamics: From Gaseous Environments to Empty Space](https://indico.nbi.ku.dk/event/1772/), May 30-Jun 3, 2022, <https://indico.nbi.ku.dk/event/1772/>
3. "The three-body problem and its implications: from secular to chaotic evolution", Dynamical Systems of Classical and Celestial Mechanics., March 21-25, 2022, at Sirius Mathematical Center in Sochi (Russia); <https://siriusmathcenter.ru/en/program/024w>
4. Review of "Alternative views on common envelope evolution", Common Envelope Evolution Workshop, May 6th-May 8th, 2019, CCA Flatiron Institute , NYC; <https://www.simonsfoundation.org/event/common-envelope-evolution-2019-workshop/>
5. "Supernove from hybrid white dwarfs", Radiation Transfer and Explosive Thermonuclear Burning in Supernova, June 17 - 28, 2018, Weizmann Institute of Science, Israel; <https://www.weizmann.ac.il/conferences/SRitp/June2018/radiation-transfer-and-explosive-thermonuclear-burning-supernovae>

6. Micro-TDEs, [Using Tidal Disruption Events to Study Super-Massive Black](https://www.issibern.ch/workshops/tidaldisruptevent/index.php/program/) holes; International Space Science Institute – Bern, Switzerland, 8-12 October 2018; <https://www.issibern.ch/workshops/tidaldisruptevent/index.php/program/>
7. “Formation and evolution of nuclear clusters: an overview”, “The Exciting Lives of Galactic Nuclei”, Feb. 2017, Ringberg castle, Germany; <https://www2.mpi-hd.mpg.de/ringbergnsc2017/>
8. “Prompt GW sources and precursor electromagnetic counterparts to GW sources”, “And then there was Light: Electromagnetic Signatures of Stellar Mass Binary Black Hole Mergers”, 4 - 8 September 2017; Lorentz Center, Leiden, Netherlands; <https://www.lorentzcenter.nl/and-then-there-was-light-electromagnetic-signatures-of-stellar-mass-binary-black-hole-mergers.html>
9. “[Are optical TDE candidates really TDEs? Stellar dynamical constraints](https://www.ast.cam.ac.uk/meetings/2017/tde17.piercing.sphere.influence)”, TDE17: Piercing the sphere of influence, 11 September 2017 - 15 September 2017, Cambridge, UK; <https://www.ast.cam.ac.uk/meetings/2017/tde17.piercing.sphere.influence>
10. Stellar dynamics in galactic nuclei, 2017, IAS Princeton, USA (had to decline for family reasons); <https://www.ias.edu/sns/stellar-dynamics-workshop>
11. “Second generation planets”, Planetary systems beyond the main sequence II; 5-10/3/2017; <http://planets-beyond-ms.weebly.com/program.html>
12. “The origins of hypervelocity stars”, Stars on the run, Bamberg, Germany; <https://ecap.nat.fau.de/index.php/stars-on-the-run-a-meeting-on-run-away-and-hypervelocity-stars-2/> (the actual link does not exist anymore)
13. “Evolution of nuclear stellar disks in the Galactic center and beyond”, Dynamics and accretion at the Galactic Center, 2016 Aspen winter conference Feb. 7-12 2016, Aspen center for physics, Aspen, USA; <https://www.astro.ucla.edu/~snaoz/Aspen16/Program.html>
14. “Dynamics in nuclear clusters”, MODEST-16 NYC: The Interplay Between Gas and Gravitational Dynamics, September 6 - 9, 2016, AMNH, NYC, USA; <https://aas.org/events/2016-05/modest-16-nyc-interplay-between-gas-and-gravitational-dynamics>
15. “Dynamics in Triple Systems. Kozai and Retrograde Planets”, IAS exoplanet winter school, Jerusalem, 28/12/2015-8/1/2016; <https://www.youtube.com/playlist?list=PLTn74Qx5mPsSZsGO1AN6wfDlz7cmeTrtj>
16. “Evolution of triple systems and the formation of compact binaries”; [Impact of Massive Binaries Throughout the Universe](https://www.lorentzcenter.nl/the-impact-of-massive-binaries-throughout-the-universe.html), 29 June - 3 July 2015, Leiden, The Netherlands ; <https://www.lorentzcenter.nl/the-impact-of-massive-binaries-throughout-the-universe.html>
17. “Formation of massive terrestrial exomoons”, “Pathways to exomoons - satellite meeting in “Pathways2015: Pathways towards habitable planets”, 17-17/7/2015, University of Bern, Switzerland <https://pathways2015.sciencesconf.org/program.html>
18. “Evolution and dynamics of triples”, Triple evolution and dynamics, Technion, 31/5/2015-5/6/2015; <http://trendy-triple.weebly.com/>
19. “The formation and evolution of Nuclear star clusters”, “The Unquiet Universe”, Cefalù Meeting 2014, Cefalù, Italy. (the original link does not work anymore) <https://www.mdpi.com/journal/universe/events/2930>
20. “Triple Evolution and Dynamics”, Binary systems, Ulaanbaatar, Mongolia (declined due to family issues); Binary Systems their Evolution and Environments, 01 - 05 Sep 2014, <https://10times.com/binary-systems-their-evolution>
21. “Formation of irregular satellites”, ISIMA 2014 Conference: Gravitational Dynamics, CITA Toronto, June 30th - July 4th 2014. <https://isima.ucsc.edu/2014/ISIMA2014.html>

22. 24."Collisional and triple dynamics in the field", ISIMA 2014: Gravitational Dynamics workshop, CITA Toronto, June 30th - August 8th, 2014,
<https://isima.ucsc.edu/2014/rest-of-program.html>
23. "Irregular supernovae and the origin of the Galactic 511 kev emission", Transient unsolved mysteries, October 20-23 2014, Eilat, Israel,
<http://shrek.phys.huji.ac.il/AI2014/node>
24. "Cosmic explosions", Kavli frontiers of Science meeting, 2013 Israeli-American Frontiers, American National academy of Science, Irvine, California US;
<https://vimeo.com/73967638> ; <http://www.nasonline.org/programs/kavli-frontiers-of-science/frontiers-alumni/alumni-directory/hagai-perets.html>
25. Stellar dynamics near massive black holes", "A Universe of Black Holes", KITP workshop, 1/7/2013-30/9/2013,
<https://www.kitp.ucsb.edu/activities/bholes13>,
<https://www.kitp.ucsb.edu/activities/bholes13/photos>
26. "Irregular supernovae, their progenitors and implications", "Multi-messenger search of high energy astrophysical sources" 2013, Acre, Israel; no website exist any more.
27. "Formation channels of blue stragglers:Theory vs. observations", Ecology of Blue Straggler Stars, 5-9/11/2012, Santiago, Chile, ,
<https://www.eso.org/sci/meetings/2012/bss2012.html>
28. "Planets in evolved binary systems", Binary and Planetary systems, Tel-Aviv university, Israel, 2012; could not find conference site (can be confirmed by Tsevi Mazeh, TAU).
29. "Planets in evolved binary systems", Extra-solar planets beyond the main sequence conference, 11 - 14 August 2010, Bamberg, Germany;
<http://www.sternwarte.uni-erlangen.de/conf2010/index2.html>
30. "Dynamics of stars near massive black holes and hypervelocity stars", Dynamics from the Galactic Center to the Milky Way Halo, May 10 - May 13, 2010, CfA Harvard, Boston MA, USA; ; <https://itc.cfa.harvard.edu/sackler-conference-2010-dynamics-galactic-center-milky-way-halo>
31. "Dynamical evolution of the young stars in the Galactic Center", Shanghai, china 19-23 October 2009; http://english.shao.cas.cn/ns/es/200910/t20091028_46377.html (link to conference itself does not exist; Conference book can be found here:
<https://www.amazon.com/Galactic-Center-Environment-Proceedings-Astronomical/dp/1583817581>
32. "A new type of supernova explosions", Fireworks workshop, Bonn, Germany;
<http://www-astro.physics.ox.ac.uk/~podsi/fireworks.html>
33. "Dynamics and evolution of the S-stars in the Galactic Center", Celebrating 15 years of precision astronomy in the Galactic Center - Hot topics and observational challenges, Ringberg, Germany; June 17 - 23, 2007 ;
<https://www2011.mpe.mpg.de/ir/meetings/ringberg2007/index.php>

Invited national/Bi-national talks

34. "Novel channels for gravitational wave sources from black hole mergers", Israeli space agency – Black holes: from theory to observations conference, Intercontinental hotel, Tel-Aviv, Israel, Feb 1st 2023.
35. "The dynamics and architectures of planetary systems", Israeli-Korean Astronomy & Space Science workshop, to be held in Ariel university, Israel on Jan 29 - 30, 2023
36. "The origin of hot and warm Jupiters", IPS 2016, Tel-Aviv university;
<https://www.israelphysicsociety.org/ips-conference-2016/programs/astrophysics>
37. "The origins of the Earth's previous Moons", ILASOL conference, BGU university, 29/3/2015, https://in.bgu.ac.il/en/Pages/events/ilasol_2015.aspx

Contributed talks

1. “Thermonuclear supernovae from mergers of hybrid He-CO WDs and CO WDs”, SNEX conference, Technion, 28/8/23-1/9/23
2. “Type-Ia supernovae from mergers of hybrid He-CO WDs and CO WDs”, The Beginning and Ends of Double White Dwarfs, Copenhagen, Denmark, July 1st- July 5th, 2019
https://indico.nbi.ku.dk/event/1161/timetable/?view=standard_numbered
3. “Non-standard supernovae”, Observational Signatures of Type Ia Supernova Progenitors, Lorentz center, Leiden, The Netherlands
<https://www.lorentzcenter.nl/observational-signatures-of-type-ia-supernova-progenitors-iii.html>
4. “Formation of Tidal Captured Binaries, Micro-tidal Disruption Events and Gravitational Wave Sources Following Neutron Star Natal Kicks”, Binaries in Cambridge, Institute of Astronomy, Cambridge, 2016
https://www.ast.cam.ac.uk/meetings/2016/binary_stars.cambridge. 2016
5. “Adaptive habitability in “Pathways2015: Pathways towards habitable planets”, 17-17/7/2015 Pathways to exomoons, Bern, Switzerland, 2015
6. “Second generation planets”, Exoplanets in Lund, Lund university, 8 May 2015
Conference website not active anymore.
7. “Micro - Tidal Disruption Events by Stellar Compact Objects and the Production of Ultra-Long GRBs/XRFs”, Tidal disruption events, 1-5/11/2014, IAS Jerusalem, Israel
8. “The role of triples in binary evolution”, Stellar Tango at the Rockies, Lake Louise, Canada
<https://aas.org/events/2013-07/stellar-tango-rockies-14>, 2014
9. “Formation of compact binaries in triple systems”, Evolution of compact binaries, Vina Del-Mar, Chile
https://www.eso.org/sci/meetings/2011/Binary_Evolution2011.html
10. “Wind shearing and the evolution of binary planetesimals”, American Astronomical Society meeting, Boston, USA; , 2011
<https://aas.org/meetings/aas218>
11. “Second generation stars and planets in evolved binary systems”, Extreme Solar Systems II, Yellowstone, USA, 2011
<https://www.cadc-ccda.hia-ihp.nrc-cnrc.gc.ca/en/meetings/archive/#2011>
12. “Second generation stars”, American Astronomical Society DDA meeting, Boston, USA, 2010
<http://tdc-www.harvard.edu/dda/meetings/2010/>
13. “The triple origin of blue stragglers”, Stellar mergers workshop, Leiden, Netherlands; , 2009
<https://www.lorentzcenter.nl/stellar-mergers.html>
14. American Astronomical Society, DDA meeting, Virginia Beach, USA; “Kozai cycles, tidal friction and the evolution of binary planetesimals”, 2009
<http://tdc-www.harvard.edu/dda/meetings/2009/>
15. The central Kiloparsec conference, Ierapetra, Crete ;Dynamical evolution of the young stellar disk in the Galactic Center”
16. “A new type of supernova explosions”, Fireworks, Weizmann Institute of Science, 2008
No active website
17. Nuclear Star Clusters across the Hubble Sequence conference, Heidelberg, Germany; “Young stars in the Galactic center”, 2008
No active website
18. Galactic nuclei workshop, Hebrew University in Jerusalem; “Massive perturbers and the last parsec problem”, 2008
No active website

19. N-body dynamics in near-Keplerian potentials workshop, Leiden, Netherlands; “Binary disruptions and the dynamical evolution of stars near massive black hole”, 2007
<https://www.lorentzcenter.nl/n-body-dynamics-in-near-keplerian-potentials.html>
20. Israel physical society, Rehovot, Israel; “Binary disruptions and the dynamical evolution of stars near massive black hole”, 2007
21. Galactic Center Workshop, Badhonnef, Germany; Massive perturbers and the origin of the S-stars in the Galactic Center”, 2006
<https://idw-online.de/de/event16876>
22. Israel physical society, “Massive perturbers and the origin of the S-stars in the Galactic Center”, Karmiel, 2005

Participation in organizing conferences

1. **SNEX: Supernova explosions, 28/8/23-1/9/23, Technion, Haifa, Israel, Chair**
2. **Common envelope physics and outcomes**, virtual conference, 30/8/2021, **SOC member**
3. **TRENDY III: Triple evolution and dynamics in stellar and planetary systems**”, Virtual conference, 22/3/2021, **co-chair**
4. **“Stellar dynamics and accretion near massive black holes”**, Tel-Aviv, Israel, 2019, **Chair**
5. **“TRENDY II: Triple evolution and dynamics II”**, Leiden, The Netherlands, 2018, **Chair**
6. **“Planetary systems beyond the main-sequence II”**, Technion, Israel, 2017, **Chair**
7. “National astrophysics workshop for undergraduate students”, Mizpe-Ramon, Israel, 2016, **Chair**
8. **“TRENDY: Triple evolution and dynamics in stellar and planetary systems”**, Technion Israel, 2015, **Chair and founder of the TRENDY conference series**
9. **“Workshop in honor of Reinhard Genzel Harvey prize award: Galaxy evolution and the Galactic center”**, Technion, 2014, **Chair**
10. **“Transients unsolved mysteries”**, Eilat 2014, **SOC member**
11. Kavli Frontiers, Jerusalem, 2014, Co-organizer of Israel National Academy of science Frontiers conference for young scientists
12. Israel physical society conference, Jerusalem, 2012, 2015, Astrophysics session organizer and **chair**
13. **“Blue Stragglers”** conference, Via del Mar Chile, 2012, member of scientific organizing committee
14. Harvard-Smithsonian CfA post-doc symposium, CfA, 2010, member of organizing committee
15. The Israeli astrophysics and cosmology students conference series (AsCoS): AsCoS I (2008, Weizmann Institute), AsCoS II (2009, Tel-Aviv university), co-founder and **chair**

COLLOQUIA

| Year | # coll. | Academic institute |
|----------------------------|---------|--|
| 2022 | 3 | 1. Colloquium at Columbia university, NY, USA 2. Colloquium at the Hebrew university, Israel 3. Colloquium at Ariel university, Israel |
| 2021 (covid) | 3 | 1. U. of Maryland, USA 2. Technion, Israel 3. Tel-Aviv university, Israel |
| 2020 (sabbatical+covid) | 2 | 1. Australian gravitational-wave excellence center, Monash university, Australia 2. Nijmegen University, Netherlands |
| 2019 (sabbatical+covid) | 5 | 1. University of Surrey, UK 2. Caltech, USA (Distinguished Kingsley lecture) 3. U. of Arizona, USA 4. UCLA, USA 5. Carnegie observatories, USA |
| 2018 | 1 | 1. Physics department, Ben Gurion University, Israel |

| | | |
|------|---|---|
| 2015 | 2 | 1. Physics department, Technion 2. Physics department, Ben-Gurion University |
| 2014 | 3 | 1. Physics department, Ben-Gurion University 2. Physics department, Bar-Ilan University 3. Physics department, Technion |
| 2013 | 1 | 1. Planetary science department, Tel-Aviv University (Israel) |
| 2012 | 1 | 1. Catolica University (Santiago, Chile) |
| 2011 | 5 | 1. UCLA (USA) 2. Brown (USA) 3. Catolica University (Chile) 4. MIT (USA) 5. Florida University (USA) |
| 2010 | 2 | 1. Tel-Aviv University, geophysics & planetary science department, Israel 2. Northwestern University, Chicago |

ADDITIONAL NOTES

Voluntary, Outreach & Educational Activity

Public science teaching and outreach:

- 2024 - speaker as part of the scientist on the net ("מדען ברשת") program (1 lecture)
- 2023 - speaker as part of the scientist on the net ("מדען ברשת") program (4 lectures)
 - Interview on i24 TV channel (on meteorites and bolides)
 - Keynote speaker in the Israel astronomy society (amateur astronomers) annual meetings
 - Speaker in the Israel astronomy society seminar
 - Invited speaker in the ASCOS III national Israeli students astrophysics conference
 - Speaker in the Paris Hebrew club meeting
- 2022 - "Israeli minute" radio program broadcast in the IDF radio
 - two Q & A meetings as part of the scientist on the net ("מדען ברשת") program organized by the Davidson institute (meeting with school classes and answering questions on science)
- 2021 -
 - Radio interviews on the three-body problem research at the IDF channel and Kan-Tarbut channel
 - Mentor for pre-undergraduate studies student
 - Radio interview for IDF channel for a special program
- 2019 Public lectures:
 - Astronomy on the bar, Yodfat, Israel
 - Israeli national Sci-fi and Fantasy "Dorot" conference (Haifa)
- 2018 Public lecture: Astronomy in the kindergarden, Technion, Haifa
 - Interview on my research in "three who know" series in the Kan-Tarbut radio channel
- 2017 Public lectures:
 - Yodfat lecture club
 - Tel-Aviv astronomy club
 - Israeli national Sci-fi and Fantasy conference (Tel-Aviv)
 - "scientific discoveries" series in the Technion
- 2016 Public lecture to teachers seminary, Haifa University (Oranim campus)
- 2014, 2015, 2016, 2017 Public lectures at Leo Baeck high school science day
- 2013 Public lectures:
 - Tel-Aviv Astronomy club (Tel-Aviv university)
 - International science night (in Technion, Haifa)
 - Public lecture for Technion employees
- 2011 Mentoring in the MIT Research Science Institute (2011)

2010 Mentor in the Smithsonian astrophysical observatory REU summer program for outstanding undergraduate students

2010 Supervisor in Harvard "PRISE" summer program for outstanding undergraduate students

2010 Mentoring of high-school student project

2010 Presentation of Astrophysics for kindergarten children (in the "Little Children Schoolhouse", Brookline MA)

2006-2009 "Youth in Science", Weizmann Institute

Physics lecturer for talented youth.

Short term physics projects instructor for outstanding young students

Long term physics project supervisor for outstanding young student (the project won the first prize in the Israeli youth in science national competition).

2003-2004 School for Arts and Science, Jerusalem (ASA)

Physics project instructor for talented youth

2000-2001 "Yahdavi" Organization (voluntary educational help by soldiers)

Low socio-economical level students Math tutor

Other educational and voluntary activities:

2023: Founder and organizer of the Academic Hamal, assisting and civilian agencies during "Iron swords" war

2004-2005 "Amutat Reut" and "Meoravut Hevratit" organizations

Co-founder of the education Center for low socio-economical level high school students

2004-2005 MA'AGAL Volunteers Center in Gilo Neighborhood in Jerusalem.

Founder and head of the volunteer center in Gilo neighborhood

2003-2004 "Social Involvement ('Meoravut Hevratit') Organization

Personal guide and tutor for delinquent youth

2002-2003 "Beit Hilel", Hebrew University - Students bi-cultural meetings

Arab-Jewish students meetings and discussions

Literary publications

1. "Just say a word" / Hagai B. Perets; Bilingual Hebrew-English poetry book, "Bashaar" press, 2022.

2. Several poems in poetry magazines: Bard, המשוררת בעליית הגג, הפוז, גלוייה, תרבות.נטו, ביטאון שירה