# Na'ama **Hallakoun**

Observational astrophysicist

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## Summary


I am an assistant staff scientist in Dr. Sagi Ben-Ami's group at the Weizmann Institute of Science, and a member of the Research-Associate Program of the Planning and Budgeting Committee of the Israeli Council for Higher Education. I joined the group in January 2023 as a postdoctoral fellow and advanced to my current role in October 2024. Prior to that, I held a postdoctoral fellowship within the same department under an independent **Benoziyo-prize fellowship**. I earned my Ph.D. in astrophysics in September 2019 with a dissertation titled "Companions and debris around white dwarfs," under the supervision of Prof. Dan Maoz at Tel-Aviv University. During my doctoral studies, I gained valuable experience through a **European Southern Observatory (ESO) Studentship** (with ESO advisor Dr. Ferdinando Patat) and spent an additional couple of years as a visitor at the ESO headquarters in Garching bei München, Germany. In addition, during my Ph.D. I received the **Dan David Scholarship** and the **John Bahcall Astrophysics Graduate Student Prize for Excellence in Research**. I earned my M.Sc. (*magna cum laude*) in physics in December 2013 with a thesis titled "Subjective randomness in quantum mechanics," under the supervision of Prof. Lev Vaidman at Tel-Aviv University. I completed my B.Sc. in physics at Tel-Aviv University in October 2011, and I received my B.A. (*magna cum laude*) in history from The Open University of Israel in July 2009.

I have published **30 scientific papers (16 of which I led as the first or second author, or as a co-supervisor)**. My observational experience spans the ultraviolet to the near-infrared regimes, utilizing both small and large telescopes. I have also led several successful competitive observing proposals, including **nearly 100 hours as a Principal Investigator on ESO's 8.2 m Very Large Telescope (VLT)**, **nearly 100 hours as a Principal Investigator on the Gemini Observatory's 8.1 m telescopes** and **6 orbits a a Principal Investigator on the Hubble Space Telescope (HST)**.

I have also been actively involved in public outreach. I was one of the organizers of the Tel-Aviv University Astronomy Club (TAU AstroClub), a volunteer public outreach organization, wrote articles about physics and astrophysics for the Davidson Institute of Science Education, and continue to deliver outreach lectures to both children and adults in Israel and abroad.


## Research Interests

White dwarfs; white dwarfs in binary systems and other compact-object binaries; Type-Ia supernova progenitors; double white dwarfs as gravitational-wave sources; planetary systems and debris around white dwarfs; brown dwarfs; stellar populations; binary evolution; the initial-to-final mass relation; barium stars; the initial mass function.

## Positions

### Assistant Staff Scientist — *Israel*

Weizmann Institute of Science — *2024–PRESENT*

Staff scientist in the group of Dr. Sagi Ben-Ami

### Postdoctoral Researcher — *Israel*

Weizmann Institute of Science — *2023–2024*

Astrophysics postdoctoral researcher in the group of Dr. Sagi Ben-Ami

### Benoziyo Prize Fellow — *Israel*

Weizmann Institute of Science — *2019–2023*

Astrophysics postdoctoral fellowship

## Education

### Ph.D. in Astrophysics — *Israel*

Tel-Aviv University — *2014–2019*

- Advisor: Prof. Dan Maoz
- Thesis: *Companions and Debris Around White Dwarfs*

*2015–2017* ESO Studentship European Southern Observatory, Germany. Advisor: Dr. Ferdinando Patat

### M.Sc. in Physics — *Israel*

Tel-Aviv University — *2011–2013*

- Advisor: Prof. Lev Vaidman
- Thesis: *Subjective Randomness in Quantum Mechanics*
- *magna cum laude*

**B.Sc. in Physics** — *Israel*
Tel-Aviv University — *2008–2011*

**B.A. in History** — *Israel*
The Open University — *2002–2009*
- *magna cum laude*

# Scholarships, Honors & Awards

## Scholarships

| | | |
|---|---|---|
| 2025–2030 | **Research-Associate Program**, Planning & Budgeting Committee of the Israeli Council for Higher Education | *Israel* |
| 2019–2023 | **Benoziyo Prize Postdoctoral Fellowship**, Weizmann Institute of Science | *Israel* |
| 2017 | **The Dan David Scholarship**, awarded by the Dan David Foundation and the Prize Laureates | *Israel* |
| 2015–2017 | **ESO Studentship**, European Southern Observatory | *Germany* |

## Honors & Awards

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|---|---|---|
| 2018 | **Certificate of Merit for Exceptional Contribution to the Tel-Aviv University Astronomy Club**, Tel-Aviv University | *Israel* |
| 2018 | **The John Bahcall Astrophysics Graduate Student Prize for Excellence in Research**, Tel-Aviv University | *Israel* |
| 2017 | **The Anne and Maurice Cohen Excellence in Research Award**, Tel-Aviv University | *Israel* |
| 2016 | **The Getty Excellence in Research Award**, Tel-Aviv University | *Israel* |
| 2008 | **The Dean's List for Excellence in Studies**, The Open University | *Israel* |
| 2004 | **The Dean's List for Excellence in Studies**, The Open University | *Israel* |

# Teaching Experience

**Lab Instructor** — *Israel*
Tel-Aviv University — *2014–2015, 2017–2019*
Tutoring in second year undergraduate physics lab classes

**Developing a New Lab Experiment** — *Israel*
Tel-Aviv University — *2018*
Developing a new observational astrophysics experiment for second year undergraduate physics lab class

**Teaching Assistant** — *Israel*
Tel-Aviv University — *2014–2015*
Teaching assistant in Physics 1 (Newtonian mechanics) for first year engineering students

**Lab Instructor** — *Israel*
Tel-Aviv University — *2011–2012*
Tutoring in first year undergraduate physics lab classes

# Student Supervision

Students from the Weizmann Institute of Science are co-supervised with Dr. Sagi Ben-Ami.

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|---|---|---|
| 2025– | **Regev Klein**, Weizmann Institute of Science | *PhD* |
| 2023– | **Oren Ironi**, Weizmann Institute of Science | *MSc, PhD* |
| 2023– | **Param Rekhi**, Weizmann Institute of Science | *PhD* |
| 2023– | **Yarin-Meir Shani**, Weizmann Institute of Science | *MSc, PhD* |
| 2023– | **Yahel Sofer Rimalt**, Weizmann Institute of Science | *PhD* |
| 2016–2017 | **Gal Birenbaum**, Tel-Aviv University, currently a postdoc at The Open University; supervised an undergrad project | *Undergrad* |

# Public Outreach

### The Davidson Institute of Science Education

*Israel*

Writer and lecturer *2022–2024*

The Davidson Institute is a non-profit organization aimed at public outreach, which serves as the educational arm of the Weizmann Institute of Science.

- Writing articles about physics and astrophysics for the general audience and kids (in Hebrew). The articles are published on the Davidson Institute website and in the general Israeli media.
- Giving outreach lectures to high-school students from Israel and abroad.
- Mentoring 18-20 year old students in the International Science Summer Institute (ISSI).

### TAU AstroClub

*Israel*

Co-organizer *2014–2019*

The Tel-Aviv University Astronomy Club (AstroClub for short) is a public outreach organization, operated voluntarily by graduate students of the Department of Astrophysics of Tel-Aviv University. The activities are open to the general public, and include monthly lectures given by leading scientists, sidewalk observations, and open days at the Wise Observatory.

- Co-organizing the TAU AstroClub activities.
- Organizing an open day at the Wise Observatory, attended by about 700 visitors.
- Participating in the Hebrew translations of the *Astronomy Picture of the Day* and *Galaxy Zoo*.
- Designing and maintaining the new website of the club.

# Scientific Community Service

| | | |
|---|---|---|
| 2025– | **Community Member of the LISA Consortium** | *ESA* |
| 2022–2025 | **Associate Member of the LISA Consortium** Texas Tech University/Hamburg Observatory LISA Group; Astrophysics Working Group | *ESA* |
| 2019– | **Referee** for *The Astrophysical Journal*, *Astronomy & Astrophysics* | |
| 2017 | **Local Organizing Committee** of the Impact of Binaries on Stellar Evolution workshop | *ESO Germany* |
| 2016–2017 | **Co-organizer** of the ESO Wine and Cheese seminar | *ESO Germany* |
| 2015–2017 | **Scientific Assistant** for the ESO Observing Programmes Committee (P97, P99 & P100) | *ESO Germany* |

# Observational Experience

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|---|---|---|
| 2016, 2026 | **Hubble Space Telescope (HST),** 6 orbits as a PI using ACS, and 10 orbits as a Co-I (including Phase II submission) using COS. | *Cycles 23, 33* |
| 2019– | **Gemini Observatory**, **92.7 h as a PI** and **2 h as a delegated PI** using Zorro and ʻAlopeke, **1.4 h as a delegated PI** using F2; 2.5 h as a Co-I using GMOS. | *Mauna Kea, Hawaii; Cerro Pachón, Chile* |
| 2023– | **MMT Observatory,** A few hours as a Co-I using Binospec. | *Mt. Hopkins, Arizona* |
| 2015–2021 | **Very Large Telescope (VLT)**, **96.3 h as a PI** using UVES; 23 h as a Co-I, using FORS, X-SHOOTER, and HAWKI. | *ESO Paranal, Chile* |
| 2014–2021 | **Wise Observatory,** Extensive experience ($\gtrsim$ 500 nights, including $\gtrsim$ 400 nights as an observer) with the 1 m, 0.71 m, and 0.46 m telescopes. | *Israel* |
| 2015–2023 | **Las Cumbres Observatory (LCO),** Extensive experience with design and execution of observations with the 1 m network (>1170 h), 0.4 m network (>300 h), and 2 m network ($\sim$ 5 h). | *LCOGT* |
| 2019–2022 | **Large Binocular Telescope (LBT),** 27.6 h as a Co-I using MODS. | *Mt. Graham, Arizona* |
| 2017–2020 | **Southern African Large Telescope (SALT),** $\sim$80 h as a Co-I, using the High Resolution Spectrograph (HRS). | *South Africa* |
| 2019–2020 | **Gran Telescopio Canarias (GTC),** 12.4 h as a Co-I using OSIRIS. | *La Palma, Spain* |
| 2016 | **New Technology Telescope (NTT)**, **6 nights as a PI**, using ULTRACAM and SofI. | *ESO La Silla, Chile* |
| | **Archival data,** Extensive experience with analysis of photometric and spectroscopic data from publicly available surveys and archives, including *K2*, *Kepler*, ESO, SDSS, and *Gaia*. | |

# Talks & Seminars

### Intermediate-separation white-dwarf binaries in the Gaia era

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|---|---|---|
| 09/2025 | **The Golden Age of CVs and Related Objects – VII**, INAF, Italy | *Invited* |
| 07/2025 | **Binary stars in the space era**, Keele University, UK | |
| 05/2025 | **Astrophysics Seminar**, Bar-Ilan University, Israel | *Invited* |

### A hidden population of WDs in Gaia astrometric binaries: insights and the mystery of missing massive WDs

| | | |
|---|---|---|
| 07/2024 | **EuroWD24: The 23rd European Workshop on White Dwarfs**, Polytechnic University of Catalonia, Spain | |
| 07/2024 | **Astrophysics Seminar**, The Technion, Israel | *Invited* |
| 06/2024 | **Astrophysics Seminar**, The Open University of Israel | *Invited* |

### The SN Ia progenitor problem and its implications to GW observations

| | | |
|---|---|---|
| 04/2023 | **Lunar Gravitational-Wave Detection**, ICTS Bengaluru, India (online) | *Invited* |

### An irradiated-Jupiter hotter than the Sun

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|---|---|---|
| 09/2023 | **IAU G5 Commission (Stellar and Planetary Atmospheres) Talk**, Instituto de Astrofísica de Canarias, Spain (online) | *Invited* |
| 08/2022 | **EuroWD22: The 22nd European Workshop on White Dwarfs**, University of Tübingen, Germany (online) | |

### Characterizing the Galactic double white dwarf population

| | | |
|---|---|---|
| 11/2022 | **KITP Conference: White Dwarfs from Physics to Astrophysics**, UC Santa Barbara, USA (online) | |
| 07/2022 | **Astrophysics Seminar**, University of Sheffield, UK (online) | *Invited* |
| 04/2022 | **Astrophysics Seminar**, Bar-Ilan University, Israel | *Invited* |
| 07/2021 | **O-MESS: Online-Meetings on Evolved Stars and Systems**, (online) | |
| 03/2021 | **KITP Conference: White Dwarfs from Physics to Astrophysics**, UC Santa Barbara, USA (online) | *Invited* |

### Companions and debris around white dwarfs

| | | |
|---|---|---|
| 01/2021 | **Astrophysics Seminar**, University of Birmingham, UK (online) | *Invited* |
| 12/2020 | **Astrophysics Seminar**, Ben-Gurion University, Israel (online) | *Invited* |
| 05/2020 | **Astrophysics Seminar**, The Technion, Israel (online) | *Invited* |
| 05/2020 | **Astrophysics Seminar**, Bar-Ilan University, Israel (online) | *Invited* |
| 10/2019 | **Gemini Science Talk**, Gemini Observatory, Hawai'i, USA | |
| 04/2019 | **Astrolunch**, The Hebrew University, Israel | *Invited* |
| 03/2019 | **Astrophysics Seminar**, Tel-Aviv University, Israel | |
| 03/2019 | **Group Meeting**, University of Potsdam, Germany | |

### Planets and debris around white dwarfs

| | | |
|---|---|---|
| 10/2021 | **2nd *ULTRASAT* workshop**, Weizmann Institute of Science, Israel | *Invited* |

### Are there enough double white dwarf mergers to explain the Milky Way's SN Ia rate?

| | | |
|---|---|---|
| 02/2021 | **The 66th Annual Meeting of the Israel Physical Society**, Israel (online) | |
| 01/2020 | **Astrophysics Department Transient Workshop**, Weizmann Institute of Science, Israel | |
| 10/2019 | **IAU Symposium 357: White Dwarfs as Probes of Fundamental Physics and Tracers of Planetary, Stellar & Galactic Evolution**, Hilo, Hawai'i, USA | |
| 07/2019 | **The Beginning and Ends of Double White Dwarfs**, Copenhagen, Denmark | |
| 02/2019 | **Milky Way Meeting**, Max Planck Institute for Astronomy, Heidelberg, Germany | |
| 07/2018 | **EuroWD18: The 21st European Workshop on White Dwarfs**, The University of Texas at Austin, Texas, USA | |
| 05/2018 | **ESO Informal Discussion**, ESO Garching, Germany | |
| 02/2018 | **Observational Signatures of Type Ia Supernova Progenitors III**, Lorentz Center, The Netherlands | |

10/2017 **Transients from Compact Objects**, Peking University, China
07/2017 **The Impact of Binaries on Stellar Evolution**, ESO Garching, Germany

**Once in a blue moon: detection and explanation of "bluing" during debris transits in WD 1145+017**

01/2019 **Astronomical Time Series 2019**, Max Planck Institute for Astronomy, Heidelberg, Germany
03/2017 **Planetary Systems Beyond the Main Sequence II**, The Technion, Israel
07/2016 **EuroWD16: The 20th European Workshop on White Dwarfs**, University of Warwick, UK

**The measure of existence of a quantum world and the Sleeping Beauty problem**

06/2015 **Quantum Optics Seminar**, Max Planck Institute of Quantum Optics, Germany
06/2013 **Particle Physics Seminar**, Tel-Aviv University, Israel

## Conferences & Schools Attended

| | | |
|---|---|---|
| 09/2025 | **The Golden Age of CVs and Related Objects – VII**, INAF, Italy | *invited talk* |
| 07/2025 | **Binary stars in the space era**, Keele University, UK | *talk* |
| 07/2024 | **EuroWD24: The 23rd European Workshop on White Dwarfs**, Polytechnic University of Catalonia, Spain | *talk* |
| 04/2023 | **Lunar Gravitational-Wave Detection**, ICTS Bengaluru, India (online) | *invited talk* |
| 11/2022 | **KITP Conference: White Dwarfs from Physics to Astrophysics**, UC Santa Barbara, USA (online) | *talk* |
| 08/2022 | **EuroWD22: The 22nd European Workshop on White Dwarfs**, The University of Tübingen, Tübingen, Germany (online) | *talk* |
| 07/2021 | **Physics Days at Warwick: Summer workshop on white dwarfs and related objects**, University of Warwick, UK (online) | |
| 03/2021 | **KITP Conference: White Dwarfs from Physics to Astrophysics**, UC Santa Barbara, USA (online) | *invited talk* |
| 02/2021 | **The 66th Annual Meeting of the Israel Physical Society**, Israel (online) | *talk* |
| 10/2019 | **IAU Symposium 357: White Dwarfs as Probes of Fundamental Physics and Tracers of Planetary, Stellar & Galactic Evolution**, Hilo, Hawai'i, USA | *talk* |
| 07/2019 | **The Beginning and Ends of Double White Dwarfs Conference + Workshop**, Copenhagen, Denmark | *talk + workshop invitation* |
| 01/2019 | **Astronomical Time Series 2019**, Max Planck Institute for Astronomy, Heidelberg, Germany | *talk* |
| 09/2018 | **The 13th IMPRS-HD Summer School: Gaia Data & Science**, The Max Planck Society and the University of Heidelberg, Germany | |
| 07/2018 | **EuroWD18: The 21st European Workshop on White Dwarfs**, The University of Texas at Austin, Texas, USA | *talk* |
| 02/2018 | **Observational Signatures of Type Ia Supernova Progenitors III**, Lorentz Center, The Netherlands | *talk* |
| 12/2017–01/2018 | **The 35th Jerusalem Winter School in Theoretical Physics: The Physics of Astronomical Transients**, The Hebrew University, Israel | *poster* |
| 10/2017 | **Transients from Compact Objects**, Peking University, China | *talk* |
| 07/2017 | **The Impact of Binaries on Stellar Evolution**, ESO, Germany | *talk* |
| 03/2017 | **Planetary Systems Beyond the Main Sequence II**, Technion, Israel | *talk* |
| 07/2016 | **EuroWD16: The 20th European Workshop on White Dwarfs**, University of Warwick, UK | *talk* |
| 10/2014 | **Transients' Unsolved Mysteries Workshop**, Eilat, Israel | |
| 06/2013 | **Qstart – Physics, Computer Science, Mathematics: Thoughts on Quantum Information**, The Hebrew University, Israel | |

# Refereed Publications

Supervised students are underlined.

## Major contributions

1. **Na'ama Hallakoun***, Sahar Shahaf*, Sagi Ben-Ami, Oren Ironi, Param Rekhi, and Hans-Walter Rix
"IK Pegasi and the Double Merger Path to Type Ia Supernovae"
2026, *The Astrophysical Journal Letters*
***Equal contribution***
`https://doi.org/10.3847/2041-8213/ae38ba`

2. Param Rekhi, Sahar Shahaf, Sagi Ben-Ami, **Na'ama Hallakoun**, Joanna Müller-Horn, Silvia Toonen, and Hans-Walter Rix
"Gaia barium dwarfs and their ostensibly ordinary counterparts "
2026, *The Astrophysical Journal Letters* , 996, L37
`https://doi.org/10.3847/2041-8213/ae286c`

3. Oren Ironi, Sagi Ben-Ami, **Na'ama Hallakoun**, and Sahar Shahaf
"The initial-to-final mass relation of white dwarfs in intermediate-separation binaries"
2025, *The Astrophysical Journal* , 982, 20
`https://doi.org/10.3847/1538-4357/adb5f2`

4. Param Rekhi, Sagi Ben-Ami, **Na'ama Hallakoun**, Sahar Shahaf, Silvia Toonen, and Hans-Walter Rix
"Ba enrichment in Gaia MS+WD binaries: Tracing *s*-process element production"
2024, *The Astrophysical Journal Letters* , 973, L56
`https://doi.org/10.3847/2041-8213/ad77b9`

5. **Na'ama Hallakoun**, Sahar Shahaf, Tsevi Mazeh, Silvia Toonen, and Sagi Ben-Ami
"A deficit of massive white dwarfs in Gaia astrometric binaries"
2024, *The Astrophysical Journal Letters* , 970, L11
`https://doi.org/10.3847/2041-8213/ad5e63`

6. S. Shahaf*, **N. Hallakoun***, T. Mazeh, S. Ben-Ami, P. Rekhi, K. El-Badry, and S. Toonen
"Triage of the *Gaia* DR3 astrometric orbits. II. A census of white dwarfs"
2024, *Monthly Notices of the Royal Astronomical Society* , 529(4), 3729-3743
***Equal contribution***
`https://doi.org/10.1093/mnras/stae773`

7. **Na'ama Hallakoun**, Dan Maoz, Alina G. Istrate, Carles Badenes, Elmé Breedt, Boris T. Gänsicke, Saurabh W. Jha, Bruno Leibundgut, Filippo Mannucci, Thomas R. Marsh, Gijs Nelemans, Ferdinando Patat, and Alberto Rebassa-Mansergas
"An irradiated-Jupiter analogue hotter than the Sun"
2023, *Nature Astronomy* , 7, 1329-1340
`https://doi.org/10.1038/s41550-023-02048-z`

8. Valeriya Korol*, **Na'ama Hallakoun***, Silvia Toonen, and Nikolaos Karnesis
"Observationally driven Galactic double white dwarf population for *LISA*"
2022, *Monthly Notices of the Royal Astronomical Society* , 511(4), 5936-5947
***Equal contribution***
`https://doi.org/10.1093/mnras/stac415`

9. **Na'ama Hallakoun** and Dan Maoz
"A bottom-heavy initial mass function for the likely-accreted blue-halo stars of the Milky Way"
2021, *Monthly Notices of the Royal Astronomical Society* , 507(1), 398-413
`https://doi.org/10.1093/mnras/stab2145`

10. **Na'ama Hallakoun** and Dan Maoz
"Limits on a population of collisional-triples as progenitors of Type-Ia supernovae"
2019, *Monthly Notices of the Royal Astronomical Society* , 490, 657
`https://doi.org/10.1093/mnras/stz2535`

11. Siyi Xu, **Na'ama Hallakoun**, Bruce Gary, et al.
"Shallow ultraviolet transits of WD 1145+017"
2019, *The Astronomical Journal* , 157, 255
`https://doi.org/10.3847/1538-3881/ab1b36`

12. Ferdinando Patat and **Na'ama Hallakoun**
"Type Ia supernovae: where are they coming from and where will they lead us?"
2019, in Beccari G., Boffin H. M. J. eds, Cambridge Astrophysics, *The Impact of Binary Stars on Stellar Evolution* , Cambridge University Press, Cambridge, Chapt. 12, pp 167–180
`https://doi.org/10.1017/9781108553070.014`

13. Dan Maoz, **Na'ama Hallakoun** and Carles Badenes
"The separation distribution and merger rate of double white dwarfs: improved constraints"
2018, *Monthly Notices of the Royal Astronomical Society* , 476, 2584
`https://doi.org/10.1093/mnras/sty339`

14. **Na'ama Hallakoun**, Dan Maoz, Eric Agol, Warren R. Brown, Patrick Dufour, Jay Farihi, Boris Gänsicke, Mukremin Kilic, Alekzander Kosakowski, Abraham Loeb, Tsevi Mazeh, and Fergal Mullally
"Periodic optical variability and debris accretion in white dwarfs: a test for a causal connection"
2018, *Monthly Notices of the Royal Astronomical Society* , 476(1), 933-942
`https://doi.org/10.1093/mnras/sty257`

15. **N. Hallakoun**, S. Xu, D. Maoz, T. R. Marsh, V. D. Ivanov, V. S. Dhillon, M. C. P. Bours, S. G. Parsons, P. Kerry, S. Sharma, K. Su, S. Rengaswamy, P. Pravec, P. Kušnirák, H. Kučáková, J. D. Armstrong, C. Arnold, N. Gerard, and L. Vanzi
"Once in a blue moon: detection of 'bluing' during debris transits in the white dwarf WD 1145+017"
2017, *Monthly Notices of the Royal Astronomical Society* , 469, 3213
`https://doi.org/10.1093/mnras/stx924`

16. Dan Maoz and **Na'ama Hallakoun**
"The binary fraction, separation distribution, and merger rate of white dwarfs from SPY"
2017, *Monthly Notices of the Royal Astronomical Society* , 467, 1414
`https://doi.org/10.1093/mnras/stx102`

17. **N. Hallakoun**, D. Maoz, M. Kilic, T. Mazeh, A. Gianninas, E. Agol, K. J. Bell, S. Bloemen, W. R. Brown, J. Debes, S. Faigler, I. Kull, T. Kupfer, A. Loeb, B. M. Morris, and F. Mullally
"SDSS J1152+0248: an eclipsing double white dwarf from the Kepler K2 campaign"
2016, *Monthly Notices of the Royal Astronomical Society* , 458(1), 845-854
`https://doi.org/10.1093/mnras/stw364`

18. Berry Groisman, **Na'ama Hallakoun** and Lev Vaidman
"The measure of existence of a quantum world and the Sleeping Beauty problem"
2013, *Analysis* , 73, 695
`https://doi.org/10.1093/analys/ant072`

## Other refereed publications

1. I. Irani, S. Ben-Ami, Y. Sofer-Rimalt, E. O. Ofek, G. Mikhnevich, A. Gal-Yam, J. Achren, A. Bichkovsky, A. Blumenweig, **N. Hallakoun**, O. Hershko, H. Kuncarayakti, S. Mattila, O. Ironi, D. Polishook, O. Yaron
"DeepSpec: a broad-band $R \sim 650$ spectrograph with multiplexing capabilities"
2024, in Marshall H. K., Spyromilio J. and Usuda T. eds, Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, *Ground-based and Airborne Instrumentation for Astronomy X* , Proceedings of the SPIE, volume 13094, id. 1309453
`https://doi.org/10.1117/12.3018423`

2. Yahel Sofer Rimalt, Sagi Ben-Ami, Eran Ofek, **Na'ama Hallakoun**, Ido Irani, Oren Ironi, Jani Achren, Alex Bichkovsky, Arie Blumenzweig, Ofir Hershko, Hanindyo Kuncarayakti, Seppo Mattila, Tsevi Mazeh, Gleb Mikhnevich, David Polishook, and Ofer Yaron
"HighSpec: a high-resolution spectrograph for the MAST telescope array"
2024, in Bryant J. J., Motohara K. and Vernet J. R. D. eds, Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, *Ground-based and Airborne Instrumentation for Astronomy X* , Proceedings of the SPIE, volume 13096, id. 130968V
`https://doi.org/10.1117/12.3020206`

3. Y. Shvartzvald, E. Waxman, A. Gal-Yam, E. O. Ofek, S. Ben-Ami, D. Berge, M. Kowalski, R. Bühler, S. Worm, J. E. Rhoads, I. Arcavi, D. Maoz, D. Polishook, N. Stone, B. Trakhtenbrot, M. Ackermann, O. Aharonson, O. Birnholtz, D. Chelouche, D. Guetta, **et al.**
"ULTRASAT: A wide-field time-domain UV space telescope"
2024, *The Astrophysical Journal* , 964(1), 74, 29 pp.
`https://doi.org/10.3847/1538-4357/ad2704`

4. S. Ben-Ami, E. O. Ofek, D. Polishook, A. Franckowiak, **N. Hallakoun**, E. Segre, Y. Shvartzvald, N. L. Strotjohann, O. Yaron, O. Aharonson, I. Arcavi, D. Berge, V. Fallah Ramazani, A. Gal-Yam, S. Garrappa, O. Hershko, G. Nir, S. Ohm, K. Rybicki, I. Sadeh, et al.
"The Large Array Survey Telescope – Science Goals"
2023, *Publications of the Astronomical Society of the Pacific* , 135(1050), 085002, 22 pp.
`https://doi.org/10.1088/1538-3873/aceb30`

5. Andrei P. Igoshev, Hagai Perets and **Na'ama Hallakoun**
"Hyper-runaway and hypervelocity white dwarf candidates in Gaia Data Release 3: possible remnants from Ia/Iax supernova explosions or dynamical encounters"
2023, *Monthly Notices of the Royal Astronomical Society* , 518(4), 6223-6237
`https://doi.org/10.1093/mnras/stac3488`

6. Tsevi Mazeh, Simchon Faigler, Dolev Bashi, Sahar Shahaf, Niv Davidson, Matthew Green, Roy Gomel, Dan Maoz, Amitay Sussholz, Subo Dong, Haotong Zhang, Jifeng Liu, Song Wang, Ali Luo, Zheng Zheng, **Na'ama Hallakoun**, Volker Perdelwitz, David W. Latham, Ignasi Ribas, David Baroch, et al.
"Probable dormant neutron star in a short-period binary system"

2022, *Monthly Notices of the Royal Astronomical Society* , 517(3), 4005-4021
https://doi.org/10.1093/mnras/stac2853

7. Yahel Sofer Rimalt, Sagi Ben Ami, Tsevi Mazeh, Sahar Shahaf, **Na'ama Hallakoun**, and Volker Perdelwitz
"HighSpec: a novel high-resolution narrow band-pass spectrograph"
2022, in Evans C. J., Bryant J. J. and Motohara K. eds, Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, *Ground-based and Airborne Instrumentation for Astronomy IX* , Proceedings of the SPIE, volume 12184, id. 1218459
https://doi.org/10.1117/12.2631190

8. Charles D. Kilpatrick, David A. Coulter, Iair Arcavi, Thomas G. Brink, Georgios Dimitriadis, Alexei V. Filippenko, Ryan J. Foley, D. Andrew Howell, David O. Jones, Daniel Kasen, Martin Makler, Anthony L. Piro, César Rojas-Bravo, David J. Sand, Jonathan J. Swift, Douglas Tucker, WeiKang Zheng, Sahar S. Allam, James T. Annis, Juanita Antilen, **et al.**
"The Gravity Collective: A Search for the Electromagnetic Counterpart to the Neutron Star-Black Hole Merger GW190814"
2021, *The Astrophysical Journal* , 923(2), 258, 26 pp.
https://doi.org/10.3847/1538-4357/ac23c6

9. Sumit K. Sarbadhicary, Mairead Heiger, Carles Badenes, Cecilia Mateu, Jeffrey A. Newman, Robin Ciardullo, **Na'ama Hallakoun**, Dan Maoz, and Laura Chomiuk
"The RR Lyrae Delay-Time Distribution: A Novel Perspective on Models of Old Stellar Populations"
2021, *The Astrophysical Journal* , 912(2), 140, 15 pp.
https://doi.org/10.3847/1538-4357/abca86

10. R. Lunnan, Lin Yan, D. A. Perley, S. Schulze, K. Taggart, A. Gal-Yam, C. Fremling, M. T. Soumagnac, E. Ofek, S. M. Adams, C. Barbarino, E. C. Bellm, K. De, C. Fransson, S. Frederick, V. Z. Golkhou, M. J. Graham, **N. Hallakoun**, A. Y. Q. Ho, M. M. Kasliwal, et al.
"Four (Super)luminous Supernovae from the First Months of the ZTF Survey"
2020, *The Astrophysical Journal* , 901(1), 61, 19 pp.
https://doi.org/10.3847/1538-4357/abaeec

11. Ł. Wyrzykowski, P. Mróz, K. A. Rybicki, M. Gromadzki, Z. Kołaczkowski, M. Zieliński, P. Zieliński, N. Britavskiy, A. Gomboc, K. Sokolovsky, S. T. Hodgkin, L. Abe, G. F. Aldi, A. AlMannaei, G. Altavilla, A. Al Qasim, G. C. Anupama, S. Awiphan, E. Bachelet, V. Bakış, **et al.**
"Full orbital solution for the binary system in the northern Galactic disc microlensing event Gaia16aye"
2020, *Astronomy & Astrophysics* , 633, A98, 21 pp.
https://doi.org/10.1051/0004-6361/201935097

12. S. Xu, S. Rappaport, R. van Lieshout, A. Vanderburg, B. Gary, **N. Hallakoun**, V. D. Ivanov, M. C. Wyatt, J. DeVore, D. Bayliss, J. Bento, A. Bieryla, A. Cameron, J. M. Cann, B. Croll, K. A. Collins, P. A. Dalba, J. Debes, D. Doyle, P. Dufour, et al.
"A dearth of small particles in the transiting material around the white dwarf WD 1145+017"
2018, *Monthly Notices of the Royal Astronomical Society* , 474(4), 4795-4809
https://doi.org/10.1093/mnras/stx3023

13. Tabetha S. Boyajian, Roi Alonso, Alex Ammerman, David Armstrong, A. Asensio Ramos, K. Barkaoui, Thomas G. Beatty, Z. Benkhaldoun, Paul Benni, Rory O. Bentley, Andrei Berdyugin, Svetlana Berdyugina, Serge Bergeron, Allyson Bieryla, Michaela G. Blain, Alicia Capetillo Blanco, Eva H. L. Bodman, Anne Boucher, Mark Bradley, Stephen M. Brincat, **et al.**
"The first post-Kepler brightness-dips of KIC 8462852"
2018, *Astrophysical Journal Letters* , 853(1), L8, 14 pp.
https://doi.org/10.3847/2041-8213/aaa405

14. N. Koshimoto, Y. Shvartzvald, D. P. Bennett, M. T. Penny, M. Hundertmark, I. A. Bond, W. C. Zang, C. B. Henderson, D. Suzuki, N. J. Rattenbury, T. Sumi, and, F. Abe, Y. Asakura, A. Bhattacharya, M. Donachie, P. Evans, A. Fukui, Y. Hirao, Y. Itow, **et al.**
"MOA-2016-BLG-227Lb: A massive planet characterized by combining lightcurve analysis and Keck AO imaging"
2017, *The Astronomical Journal* , 154(1), 3, 15 pp.
https://doi.org/10.3847/1538-3881/aa72e0

## Submitted publications

1. Yarin Meir Shani, **Na'ama Hallakoun**, Sagi Ben-Ami, Sahar Shahaf, Jiaodong Li, Hans-Walter Rix, and Silvia Toonen
"The silent majority: The interacting post-common-envelope binaries underlying cataclysmic variables"
2025, *Submitted to The Astrophysical Journal*
https://ui.adsabs.harvard.edu/abs/2025arXiv251017957M/abstract