

CURRICULUM VITAE

Assaf Horesh

August 2024

1. PERSONAL DETAILS

The Hebrew University of Jerusalem,
Racah Institute of Physics,
Jerusalem 91904
Israel

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2. HIGHER EDUCATION

Weizmann Institute of Science

Nov 2013 – Sep 2016: Senior Postdoctoral Scholar in astrophysics, Host: Gal-Yam A. # 58 - 82

California Institute of Technology (Caltech)

November 2010 – October 2013: Postdoctoral Scholar in astrophysics, Host: Kulkarni S. # 83 - 107, 109 - 111

Tel Aviv University, Tel Aviv, Israel

2010: Ph.D. in Physics, Advisor: Dan Maoz # 113, 112, 108
2005: M.Sc. in Physics, Magna Cum Laude, Advisor: Dan Maoz # 114
2002: B.Sc. in Physics

3. APPOINTMENTS AT THE HEBREW UNIVERSITY

October 2016 – Current: Current position - Associate Professor

3.A PREVIOUS EMPLOYMENT

Tel-Aviv University

2003 – October 2010: Teaching Assistant

Tel-Aviv University

2003 – 2005: Youth University Instructor,

Holon Institute of Technology

2002 – 2003: Teaching Assistant

Israel Defense Force (IDF)

1994 – 1999: Military Service (Infantry and Operations Officer, Rank: Lieutenant)

4. TASKS AT HUJI: Since Promotion

HUJI Lead of the HUJI-UoT Research Alliance in Astrophysics

Member of the Physics Master Exam Committee.

Member of the Physics Colloquium Committee.

PI of the new HUJI 0.5m Telescope Observatory Project (Built and Completed on Safra Campus)

Before Promotion

Managing the I-Core Computer Cluster Upgrade Project.

Organizing the Israeli Astronomy National Day 2018 at HUJI.

5. SERVICE IN OTHER ACADEMIC INSTITUTIONS	N/A
6.A. AWARDS AND FELLOWSHIPS	2010: Cosmology Postdoctoral Fellowship (declined), awarded by the Lawrence Berkeley National Laboratory (LBNL) 2009: Dan David Prize Scholarship, awarded by the Dan David Foundation, Sept 2005: Dean’s Commendation for Public Outreach Activity, awarded by Tel Aviv University 2004: School of Physics and Astronomy award for outstanding achievements, awarded by Tel Aviv University 2005: M.Sc Magna Cum Laude, Tel-Aviv University
6.B. OTHER ACADEMIC ACTIVITY	<u>Since Promotion</u> An Israeli member in the Rubin/LSST Project Scientific Reviewer for the MeerKAT Telescope Scientific Reviewer for the Giant Meter Radio Telescope (GMRT) Referee for <i>Nature</i>, the <i>Monthly Notices of the Royal Astronomical Society (MNRAS)</i> , <i>The Astrophysical Journal (ApJ)</i>, <i>Astronomy & Astrophysics (A&A)</i> Member of the transient science working group for the Square Kilometer Array (SKA) Telescope Member in multiple science working groups for the Israeli ULTRASAT satellite (Radio Lead) Israeli representative to the radio astronomy committee (commission J) at the International Union of Radio Science (URSI) <u>Since Joining HUJI</u> Member of the Pazy professional committee NSF panel member Science organizing committee - The 13th International LISA Symposium (2020) Member of the Very Large Array science review panel (4 cycles). Lead Organzier of the “Radio Astronomy - A Time Domain Prespective” workshop (HUJI-Australia 2019) Reviewer for the Israeli Science Foundation Council Member (and working group leader) of ”ThunderKAT: A MeerKAT Transient Key Science Project” Israeli committee member in the PHAROS Cost Action (starting 2019) Co-Lead Organzier of the “Fast Radio Bursts” workshop (2018) Topic Leader in the GWverse Cost Action (starting 2018) <u>Before Joining HUJI</u> Lead Member of the “New Frontiers in Radio Astronomy” workshop SOC (Weizmann Institute,

2015)

Member of the “Very Large Array Sky Survey (VLASS)” time-domain science working group

Member of Caltech Keck/Palomar Time Allocation Committee (TAC), 2013

Caltech Time Domain Forum Co-organizer

American Astronomical Society (AAS) Member 2011-2014

Organizer of the astrophysics student seminar - Tel Aviv University.

Founder and organizer of astro-ph club - Tel Aviv University.

6.B.1 MAJOR
ACADEMIC
COLLABORATIONS

Since Promotion

The HUJI-UoT Research Alliance

The AMI Radio Telescope - Co-lead of the transient science (with Oxford University)

The new ASKAP Radio Telescope Variables and Slow Transients Key Full 5 year Project (VAST; member and co-lead of supernova, tidal disruption events, and active galactic nuclei topics)

The BlackGEM Project - Partner (Lead of Stripped Envelope Supernova Group, member of science groups: supernovae, fast transeints, TDEs, gravitational-wave events).

Since Joining HUJI

The new ASKAP Radio Telescope VAST Pilot Project

The Zwicky Transient Facility (starting end of 2017) - Associate Member.

Member of the ThunderKAT Key Science Project in MeerKAT (council member since 2017).

Before Joining HUJI

The Public ESO Spectroscopic Survey for Transient Objects (PESSTO) collaboration - Project Lead Radio Observer (Since 2015).

The Palomar Transient Factory - Postdoctoral Researcher; Caltech Lead Optical Observer; Project Lead Radio Observer (2011 - 2017)

6.C. SOCIAL
IMPACT/SERVICE

Since Joining HUJI

Commentary and contribution to popular science articles in Haaretz newspaper

Several interviews on Israeli radio

Lecturer at Amirim program (HUJI)

Lecturer at Israeli Space Week (HUJI)

Lecturer at the “Alpha” program (HUJI)

Lecturer at HUJI Astronomy event in “Mitcham Hatachana” (HUJI)

HUJI sidewalk astronomy observations - outreach events

Lecturer at Jerusalem high school (as part of Ramon program).

Before Joining HUJI

Lecturer at the CARMA observatory public open house event.

Volunteer at the “Transit of Venus” 2012 event in Owens Valley, CA, USA.

Co-organizer of the “Supernova of a generation” public event - Caltech

Co-organizer of the Tel-Aviv University astronomy club public lecture series.

Co-writer of the “Astropedia” - the online Hebrew encyclopedia of space science

”BASHAAR club for youth”: giving public lectures in schools and high schools.

A member of the “Cosmic Diary” team - An IAU international year of astronomy (2009) public outreach project

Co-author of “Postcards from the Universe” - An IAU book for the international year of astronomy (2009)

7. RESEARCH
GRANTS

Since Promotion

2023 - 2027 - Israel Science Foundation (ISF) - "Exploring Transients in Galactic Nuclei using Radio Waves", Horesh A. - 800k ILS total

2023-2027 University of Toronto and Hebrew University Research Alliance Grant Program, Horesh A., Drout M., Stone N., Sari R., Matzner C - 125k/500k CAD.

Since Joining HUJI

2022 - 2024 University of Bonn and Hebrew University Collaborative Research Grant Program, Horesh A., Kramer M., Langer N. - 20k Euro

2021 - 2025 Israel Bi-national Science Foundation (BSF) - "The Dynamic Radio Sky - A Window to New Discoveries", Horesh A., Hallinan G. - 60k/240k USD

2021 - Stockholm University - Hebrew University of Jerusalem Joint Research Workshop Grants Program, Horesh A., Jesper Sollerman - 10k Euro

2019 - HUJI - "HUJI President and Rector Visitability Grant", Horesh A. - 15k ILS

2019 - 2021 Israel Bi-national Science Foundation (BSF) - Startup grant - "Characterizing the Dynamic Radio Sky via the VLA All Sky Survey", Horesh A., Hallinan G. - 75k/150k USD # 10, 17, 20, 25

2019 - 2022 (extended to 2024) - Zelman Cowen Foundation - "Radio Time-Domain Astronomy - An Australia Israel Joint Project", Horesh A. - 200k AUD total, # 8

2018 - 2022 - Israel Science Foundation (ISF) - "Analyzing Cosmic Explosions via Radio Waves", Horesh A. - 960k ILS total, # 4, 5, 16, 19, 21, 23, 29, 32, 35 (and master thesis)

2018 - 2022 - Israel Science Foundation (ISF) - "Analyzing Cosmic Explosions via Radio Waves (Equipment)", Horesh A. - 800k ILS total, # 4, 5, 16, 19, 21, 23, 29, 32, 35

2017 - 2018 German Israel Foundation (Young program) - "New Frontiers in Time-Domain Radio Astronomy", Horesh A. - 17k Euro total, # 27, 28

2016-2021 - Israel Science Foundation (ISF) - Icore - "Characterizing Tidal Disruption Events", Horesh A. - 900k ILS total, # 1, 2, 3, 9, 15, 17, 23, 33, 47, 48

2016-2021 - Israel Science Foundation (ISF) - Icore - "Characterizing Tidal Disruption Events (Equipment)", Horesh A. - 660k ILS, # 1, 2, 3, 9, 15, 17, 23, 33, 47, 48

8.A. TEACHING AT Master Students:

THE HEBREW
UNIVERSITY
(STUDENT
SUPERVISION)

Aug 2017 - Dec 2019 (graduated), Itai Sfaradi, # 29

2022 - current, Nadav Shoval

2022 - current, Racheli Berdugo

2023 - current, Adam Lang

PhD Students:

Jan 2020 - 2024, Itai Sfaradi (graduates -> postdoc in Berkeley), # 2, 3, 4, 5, 9, 12, 15, 19, 21

Aug 2024 - current, Yirmi

Undergraduate Students:

Noa Levi Undergrad Research Student (currently)
Noam Berger Undergrad Research Student (graduated)
Kovi Rose, Undergrad Research Student (currently a collaborating PhD student at Sydney)
Yael Sarusi, Undergrad Research Student (graduated)
Guy Avrahami, Undergrad Research Student (graduated)
Sapir Parnes, Undergrad Research Student (graduated)

8.B. TEACHING AT THE HEBREW UNIVERSITY (POSTDOC SUPERVISION)

Postdoctoral Researchers:
 Summer 2019 - 2021, Roque Ruiz-Carmona, Postdoc, # 4

8.C. TEACHING AT THE HEBREW UNIVERSITY (COURSES)

* 2016/17A - Mechanics for Med Students (undergraduate students)
 * 2017/18A, 2018/19A, 2019/20A - Advanced Data Analysis (A new annual course built according to my teaching statement; graduate and 3rd year undergraduate students)
 * 2018/19B, 2019/20B, 2020/21B, 2021/22B, 2022/23B, 2023/24B, Introduction to Observational Astrophysics (A new annual course built according to my teaching statement; graduate and 3rd year undergraduate students)
 * 2020/21A, 2021/22A, 2022/23A, 2023/24A, Astrophysics & Cosmology s (elective 3rd year undergraduate students)
 * 2023/24B - A Joint Bezalel - HUJI Course (Master students)

8.D TEACHING WORKSHOPS AT HUJI

* 2017, A HUJI workshop on reverse teaching techniques
 * 2017, A HUJI workshop on technological tools for teaching
 * 2020, A HUJI workshop on fundamental teaching techniques
 * 2023, A HUJI workshop on teaching during war times

8.E. MENTORING (BEFORE HUJI)

Caltech
Kunal Mooley, Graduate Student
 Tel-Aviv University
Or Graur, Graduate Student

9. OBSERVING EXPERIENCE

Karl G. Jansky Very Large Array (VLA) - (PI and Co-I of multiple programs on 2011 - current)
 Multiple programs on the Australian Telescope Compact Array (ATCA) (since 2016)
 Two programs on the new MeerKAT radio Telescope (Since 2020)
 The Combined Array for Research in Millimeter-Wave Astronomy (CARMA; observatory now shut down) – (PI and Co-I under multiple programs on 2011- 2015)
 ALMA and NOEMA high frequency telescopes - (PI and Co-I of programs starting 2017-current)
 Multiple programs on the LCO network (since 2016)
 Two nights with the 8.2 m Subaru telescope at the Mauna Kea Observatory, Hawaii, USA
 Over 10 nights with the 5 m Hale telescope at the Palomar Observatory, California, USA
 Seven nights with the 4 m Mayall telescope at the Kitt Peak Observatory, Arizona, USA
 Over 15 nights with the 10 m Keck telescope at the Mauna Kea Observatory, Hawaii, USA