

# Itai Linial – Curriculum Vitae

(September 2021)

## **Personal**

Date of birth: July 5, 1990 (Israel)

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## **Education**

2017-present: PhD in Physics, Hebrew University of Jerusalem  
Expected graduation: July 2022

2015-2017: M.Sc in Physics, Hebrew University of Jerusalem, *Suma cum Laude*  
Research project: Mass transfer in binary systems  
Supervisor: Prof. Re'em Sari

2013-2014: B.Sc in Physics, Hebrew University of Jerusalem, *Magna cum Laude*

2013-2014: B.Sc in Mathematics, Hebrew University of Jerusalem, *Magna cum Laude*

## **Honors and Awards**

- [Adams Fellowship](#) for Ph.D. studies (Adams Fellow, 2018 cohort; 2018-2022)
- 69<sup>th</sup> Lindau Nobel Laureate Meeting dedicated to physics (2019)
- Arnold Rosenblum Award for outstanding achievements in astrophysics (2017)
- Dean's list of the Hebrew University of Jerusalem (2014, 2015, 2016)
- Ulpanat de-Shalit program for undergraduate students, Weizmann institute (2013)
- Participated in the Hebrew University's delegation to the LHC in CERN (2013)
- National Astrophysics Olympiad (*Dror Sade*), third place (2009)
- International physics Olympiad (IPhO) (2008)
- Shalhevet Freier Physics Tournament, Weizmann Institute, second place (2007)
- National Mathematics Teams Olympiad, second place (2007)

## **Talks & Seminars (international)**

- "Stellar Feasts of Supermassive Black Holes", Astrophysics department seminar, UCLA Physics and Astronomy department. University of California Los Angeles, CA, USA. December 2019.

- “Early light from Aspherical explosions”, Astro-lunch seminar, Astronomy department, University of California, Berkeley, CA, USA. November 2019.
- “Early light from Aspherical explosions”, Astrophysics seminar, TAPIR, Caltech, CA, USA. November 2019.
- “Early light from Aspherical explosions”, Astrophysics department seminar, University of California Los Angeles (UCLA), CA, USA. August 2019.
- “TTV Modes – Inferring Planet Mass and Eccentricity”, Exoplanets II Conference, Cambridge University, UK. June 2018.
- “Mass loss through L2”, Physics of Extreme Gravity Stars, NORDITA, Stockholm, Sweden. June 2017.

### **Talks & Seminars (In Israel)**

- “Channels of Stellar Destruction in Centers of Galaxies”, Division for Astronomy, Planetary and Space Sciences of the Israeli Physics Society, June 2021
- “GW170817 – Cooling off with a Kilonova”, Israel-Australia Joint Radio Astronomy Workshop, Hebrew University of Jerusalem, April 2019.
- “Explosive Transients – Oblique Shocks”, Astro-lunch seminar, Tel Aviv University, March 2019.
- “TTV Modes – Inferring Planet Mass and Eccentricity”, Israeli Physics Society, Technion, Israel Institute of Technology, December 2017.
- “Geometric Approach to Transit Timing Variations”, Planetary Science Seminar, Weizmann institute of Science. December 2017.
- “Mass loss through L2 – Application to slow accretion of stars by black holes”, National Israeli Astronomy Seminar Day, Tel Aviv University. January 2017.

### **Teaching Experience**

- 2015-present Teaching assistant at the Hebrew University in the Physics department
- 2015-2017 “Physics lab”, for B.Sc. second year students (physics major; mandatory)
- 2016-2018 “Classical mechanics” for B.Sc. biology students (biology major, mandatory)
- 2018-2019 “Astronomy for Poets” – introduction to modern astronomy for non-science students of the Hebrew University.
- 2018-2022 “Analytical mechanics” for B.Sc. students (physics major; mandatory)

### **Scientific Engagement**

- Referee for the Monthly Notices of the Royal Astronomical Society.
- Referee for the Astrophysical Journal.

### **Outreach and external activities**

- 2021 – Organized the Racah Institute of Physics summer workshop for outstanding undergraduate physics students.
- 2018-2021 – Organized and participated in public outreach stargazing events.
- 2018 – Volunteered in the “Speaking Hebrew” program – Hebrew course for Palestinian women from East Jerusalem.
- 2016 - Volunteered in “Engineers without borders” – developed and taught a science and sustainability program in a vocational high school in Jerusalem, Israel.
- 2008-2013 – Mandatory military service an elite technological unit in the IDF. Led a computer vision research and development team.

### **Journal Publications (Peer reviewed)**

1. **Linial, I.**, Fuller, J., Sari, R., “Partial stellar explosions – ejected mass and minimal energy”, Monthly Notices of the Royal Astronomical Society, Volume 501, Issue 3, pages 4266-4275, (2021). <https://doi.org/10.1093/mnras/staa3969>. IF: 5.36 [Q1: 13/91, 86<sup>th</sup> percentile].
2. **Linial, I.**, Sari, R., “Oblique Shock Breakout from a Uniform Density Medium”, Physics of Fluids 31, id. 097102, (2019). <https://doi.org/10.1063/1.5100060>. IF: 3.52 [Q1: 6/34, 82<sup>nd</sup> percentile].
3. **Linial, I.**, Sari, R., “Cooling off with a kilonova - Lower Limit on the Expansion Velocity of GW170817”, Monthly Notices of the Royal Astronomical Society, Volume 483, Issue 1, pages 624-627, (2019). <https://doi.org/10.1093/mnras/sty3170>. IF: 5.36 [Q1: 13/91, 86<sup>th</sup> percentile].
4. **Linial, I.**, Gilbaum, S., Sari, R., “Modal Decomposition of TTV: Inferring Planet Masses and Eccentricities”, The Astrophysical Journal, Volume 860, Issue 1, article id. 16, (2018). <https://doi.org/10.3847/1538-4357/aac21b>. IF: 5.75 [Q1: 10/91, 89<sup>th</sup> percentile].
5. **Linial, I.**, Sari, R., “Mass loss through the L2 Lagrange point – Application to Main Sequence EMRI”, Monthly Notices of the Royal Astronomical Society, Volume 469, Issue 2, pages 2441-2454, (2017). <https://doi.org/10.1093/mnras/stx1041>. IF: 5.36 [Q1: 13/91, 86<sup>th</sup> percentile].
6. Mahlab, S., **Linial, I.**, Linial, M., “Translation Efficiency of Synaptic Proteins and Its Coding Sequence Determinants”, Bioinformatics, pages 151-157, (2013). IF: 7.14 [Q1: 6/146, 96<sup>th</sup> percentile].
7. Tirosh, I., **Linial, I.**, Ashkenazi M., Linial, M., “Short Toxin-like Proteins Abound in Cnidaria Genomes”, Toxins (Basel), 4 (11), pages 1367-1384, (2012). <https://doi.org/10.3390/toxins4111367>. IF: 4.55 [Q1: 21/93, 77<sup>th</sup> percentile].

### **Submitted & Under Review**

1. Irwin C., **Linial, I.\***, Nakar, E., Piran, T., Sari, R., “Bolometric light curves of aspherical shock breakout”, Submitted to Monthly Notices of the Royal Astronomical Society (August 2021).  
(\* = equal contribution)
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