Yael Alush – CV

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EDUCATION

PhD in Physics, The Hebrew University of Jerusalem — 2021–
Thesis: *Dynamics and Transients in Galactic Centers: Laboratories for General Relativity*
Advisor: Nicholas C. Stone

MSc in Physics, The Hebrew University of Jerusalem — 2019–2021
Thesis: *Black Holes Testing General Relativity, Revisited*
Advisor: Nicholas C. Stone

BSc in Applied Mathematics, Bar-Ilan University — 2011–2014
Studied simultaneously with high school:
"The Youth Gifted in Mathematics program"

TEACHING

Teaching Assistant, The Hebrew University of Jerusalem — 2023–2024
Physics 77101: Mechanics and Special relativity
Physics 77401: Analytical Electrodynamics

Teaching Assistant, The Hebrew University of Jerusalem — 2019–2023
Physics 77101: Second-year BSc lab course

PROFESSIONAL EXPERIENCE

Full Stack Developer, Intelligence Corps, IDF — 2016–2019
Developed microservices and web applications using Node.js, Angular, MSSQL, and ElasticSearch.

Automation Developer, Intelligence Corps, IDF — 2014–2016
Developed .NET automation frameworks using Selenium.
Designed CI plans and testing infrastructure using Bamboo.

PROFESSIONAL SERVICE

ULTRASAT associate member — 2025–

HONORS & AWARDS

- Azrieli Fellowship — 2024–
  Awarded annually to 10 early PhD students in exact sciences across Israel.
- Dean list — 2021

PUBLICATIONS

a) Published:

Alush, Y., & Stone, N. C. (2025). "Late-Time Evolution of Magnetized Disks in Tidal Disruption Events". ApJ 993 14.

Alush, Y., & Stone, N. C. (2022). "Revisiting Stellar Orbits and the Sgr A* Quadrupole Moment". Physical Review D, 106(12), 123023.

b) In Review:

Alush, Y., Stone, N. C., van Velzen, S. "How Flat is a Plateau? Evolution of Late-Time TDE Disks". arXiv:2510.24696.

c) Near Submission:

Alush, Y., Stone, N. C., Hughes, S. A. "EMRIs in Kerr Spacetime: The Role of Inclination Diffusion". https://yaelalush.com/Alush+2026.pdf

TALKS & POSTERS

- Northwestern University, CIERA seminar, Jan. 2026
- UCLA seminar, Nov. 2025
- ITC Luncheon, Harvard, Nov. 2025
- THEA seminar, Columbia, Nov. 2025
- Princeton Seminar, Nov. 2025
- KU Astro Seminar, online, Oct. 2025.
- Loss Cones in Como, Como, Sep. 2025.
- X-ray Quasi-Periodic Eruptions and Repeating Nuclear Transients, Madrid, Jun. 2025.
- UW-Madison science seminar, Madison, Mar. 2025.
- Leiden Observatory group meeting, online, Feb. 2024.
- Bar Ilan astrophysics seminar, Ramat Gan, Nov. 2024.
- Tidal Disruption Events and Nuclear Transients: Entering the Data-Rich Era, Heraklion, Sep. 2024.
- AsCoS: Astrophysics & Cosmology Student Conference, Tel Aviv, Aug. 2024.
- GRAVITY, Fundamental Physics at the Galactic Centre Workshop, Porto, Dec. 2023.
- CIERA seminar, The Northwestern University, Chicago, Aug. 2023.
- MODEST-23, Chicago (poster), Aug. 2023.
- Israel Physical Socieny (IPS) conference, Tel Aviv, Apr. 2023.
- Ilan Ramon International Space Conference, Tel Aviv (poster), Feb. 2023.
- Unsolved Astrophysics Problems, Jerusalem, (poster), Dec. 2022.

VOLUNTARY & OUTREACH

- Volunteered as an academic advisor in the Ramon SpaceLab program — 2025
  Middle school students design experiments that are launched into space and conducted by ISS astronauts.
- Talks with female bachelor's students to encourage pursuit of higher studies — 2021–2024
- Participated in the university rocketry club — 2023
- Organized and participated in public outreach stargazing events — 2019–2021
- Led a coding hackathon team for female high school students — 2018
  My team won first place.
- Volunteered as a mentor in SheCodes — 2016–2019
  Coding workshops for woman.