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**CURRICULUM VITAE****OR GRAUR**

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Center for Cosmology and Particle Physics	Office: Meyer Hall of Physics, #533
New York University	Phone: +1-(212)-992-7454
4 Washington Place	E-mail: <a href="mailto:orgraur@nyu.edu">orgraur@nyu.edu</a>
New York, NY 10003, USA	URL: <a href="http://www.cpp.nyu.edu/orgraur">www.cpp.nyu.edu/orgraur</a>

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**EDUCATION**

**Tel-Aviv University**, Tel Aviv, Israel

**American Museum of Natural History**, New York, NY, USA

2008 – 2013: Ph.D., Physics and Astronomy, awarded on Nov. 21, 2013

Advisor: Prof. Dan Maoz (Tel-Aviv University)

Co-Advisor: Prof. Michael Shara (American Museum of Natural History)

Thesis title: *The Type Ia Supernova Rate and Delay-Time Distribution*

**Tel-Aviv University**, Tel Aviv, Israel

2003 – 2007: B.Sc., Physics and Astronomy, *Magna cum Laude*

**POSITIONS AND PROFESSIONAL EXPERIENCE**

2014 – present: *Assistant Research Scientist*, New York University

2014 – present: *Scientific Advisor*, Science Bulletins, American Museum of Natural History

2013 – present: *Research Associate*, American Museum of Natural History

2013 – 2014: *Assistant Research Scientist*, The Johns Hopkins University

2013 – 2014: *Visiting Scientist*, New York University

**PUBLICATIONS & PRESENTATIONS SUMMARY**

As of May 2016, a total of 25 peer-reviewed papers published in leading journals, of which six are first-author papers; another three papers submitted and currently under review, as well as a conference proceedings; three more first-author papers in preparation; and twelve astronomical circulars. The following citation data for these papers were gathered from ADS:

Total citations (refereed papers): 795    Citations excluding self-citations: 687  
Citations/paper: 27.9    h-index: 12    i10-index: 14

34 contributed and invited seminars, at 20 institutions worldwide.

8 talks and 6 posters at international and national conferences.

**RESEARCH INTERESTS**

I am interested in understanding the nature of the different stellar systems that explode as various types of supernovae, as well as using these supernovae to learn about diverse areas of physics, from nucleosynthesis to cosmology. I conduct ground- and space-based observations of supernovae, mostly through large imaging and spectroscopic surveys. I am also interested in advanced data-science techniques and how they can be used to mine the vast amount of data that will be accumulated on transients in the coming decades.

**GRANTS AND FELLOWSHIPS**

2016: NSF Astronomy and Astrophysics Postdoctoral Fellowship (\$267,000)

2015: NASA Hubble Space Telescope Cycle 23, Co-I and NYU PI (\$6,785)  
“Frontier Fields Supernova Search”

2015: AAS International Travel Grant (\$928)

2014: NASA Hubble Space Telescope Cycle 22, PI (\$24,850)  
“Constraining Type Ia Supernova Nucleosynthesis Using Late-Time Photometry of SN2012cg”

2013: NASA Hubble Space Telescope Cycles 21–22, Co-I and NYU PI (\$6,646)  
“Frontier Field Supernova Search”

2014: AAS International Travel Grant (\$1,621)

2012: AAS International Travel Grant (\$1,124)

## SCHOLARSHIPS, HONORS, AND AWARDS

2012: Rodger Doxsey Travel Prize (221st AAS Meeting, Long Beach, CA)

2012: PhD Comics 2-Minute Thesis Competition ([YouTube video](#) viewed by > 75,000 unique viewers)

2012: WorldQuant Foundation Scholarship

2012: School of Physics and Astronomy, Tel-Aviv University, research award

2010: The Ilan Ramon Award

2009 – 2013: School of Physics and Astronomy, Tel-Aviv University Ph.D. scholarship

2008 – 2009: School of Physics and Astronomy, Tel-Aviv University M.Sc. scholarship

2003: Dean’s honor list

## EDUCATIONAL EXPERIENCE

2015 – *Instructor*, Lang summer program, American Museum of Natural History. I instructed a three-week research program for high-school students, in which they measured the changing periodicity of Cepheid variable stars in the Large Magellanic Clouds. I devised the colloquium and led the lectures and labs.

2012 – *Guest Lecturer*, Hunter College. In a lecture titled “Dark Energy and the Fate of the Universe,” I reviewed basic cosmology and the discovery of the accelerating expansion of the Universe.

2011 – *Guest Lecturer*, Hunter College. As part of Astronomy 101, I gave an introduction to cosmology and the discovery of dark energy in a lecture titled “The Fate of the Universe.”

2011 – present: *Mentor* in the Science Research Mentoring Program (SRMP) at the American Museum of Natural History. Every year, I mentor 3–4 high-school students by advising them in a research project that is part of my broader research program.

2008 – 2011: *Teaching Assistant* in 1st- and 2nd-year Undergraduate Physics Labs, Tel-Aviv University. In parallel to my normal lab duties, I wrote a data analysis and statistics handbook that became required reading for the 1st- and 2nd-year labs at Tel Aviv University, and served as a template for a similar handbook at the Hebrew University in Jerusalem.

## MENTORING

2015 – 2016: H. Ernsberger, M. Filipchenko, and L. GoldMansour (SRMP class of 2016)

2014 – 2015: J. Gilbert, W. Hernandez, R. Rinaldi-Rose, and E. Yorgancioglu (SRMP class of 2015)

2013 – 2014: D. Y. Chen, L. Christie-Dervaux, J. Kruk, and Z. Murray (SRMP class of 2014)  
Results presented at the 225th AAS meeting: [Murray et al. \(2015\)](#).

- 2012 – 2013: C. Li, J. Neustadt, and E. H. Rogers (SRMP class of 2013)  
 2012: M. Mirmelstein, undergraduate student, Tel-Aviv University, supervisor: D. Maoz  
 2012: N. C. Loncke and A. K. Shankar (STARS program, with G. Perez-Giz, NYU)  
 2011 – 2012: K. Jedruszczuk, K. Lin, and A. Ovadia (SRMP class of 2012)

## OBSERVATIONAL EXPERIENCE

- *HST*, Cycle 22, PI: “Constraining Type Ia Supernova Nucleosynthesis Using Late-Time Photometry of SN2012cg.” 4 orbits on *HST*/WFC3.
- SALT, 2014 semester 1, PI: “Spectroscopy of Three Supernova-Hosting Dwarf Galaxies.” 2 hours on SALT/RSS.
- *HST*, Cycles 21–23, Co-I: “Frontier Field Supernova Search.” 60 orbits over Cycles 21–23 on *HST*/WFC3 and *HST*/ACS.
- SALT, 2012 semesters 1 & 2, PI: “SALT Supernova Spectroscopy Followup.” 2.5 hours each semester on SALT/RSS.
- Magellan, 2012 January-June, Co-I: “Using FIRE to Establish SN Ia Rates at High Redshifts.” 2 targets with Magellan/FIRE.

## CONFERENCES AND SCHOOLS ATTENDED

*(Invited talks appear in bold; upcoming talks appear in italics.)*

- 2016: Supernovae Through the Ages: Understanding the Past to Prepare for the Future  
Easter Island, Chile, (**invited talk**)
- 2015: Jerusalem Workshop: Tidal Disruption Events  
Jerusalem, Israel (talk)
- 2015: XXIX IAU General Assembly, FM10: Stellar explosions in an every-changing environment  
Honolulu, HI, USA (talk)
- 2015: F.O.E. Fifty-One Erg  
Raleigh, NC, USA (two posters)
- 2015: The 225th Meeting of the American Astronomical Society  
Seattle, WA, USA (talk+poster)
- 2014: Type Ia Supernovae: progenitors, explosions, and cosmology  
Chicago, IL, USA (talk)
- 2014: Supernovae in the Local Universe: celebrating 10,000 days of Supernova 1987A  
Coffs Harbour, New South Wales, Australia (poster)
- 2014: The 223rd Meeting of the American Astronomical Society  
Washington, DC, USA (talk)
- 2013: CLASH Science Team Meeting  
London, England (talk)
- 2013: The 221st Meeting of the American Astronomical Society  
Long Beach, CA, USA (dissertation talk)
- 2012: Fall 2012 Meeting of the Astronomical Society of New York  
Siena College, Loudonville, NY, USA (talk)
- 2012: Supernovae Illuminating the Universe: from Individuals to Populations  
MPA/ESO/MPE, Garching, Germany (poster)
- 2012: The 219th Meeting of the American Astronomical Society  
Austin, TX, USA (poster)

- 2010: Observational Signatures of Type Ia Supernova Progenitors  
Lorentz Center, Leiden, The Netherlands (talk)
- 2009: The 27th Jerusalem Winter School in Theoretical Physics  
Jerusalem, Israel

## SEMINARS/COLLOQUIA

*(Invited talks appear in bold; upcoming talks appear in italics.)*

34. **CCAPP Seminar, Ohio State University, 10 May 2016**
33. **Lunch Talk, Siena College, 14 March 2016**
32. **Seminar, University of Portsmouth, 28 January 2016**
31. CTC Talk, University of Maryland, 11 January 2016
30. Thunch Talk, Princeton University, 22 October 2015
29. **Seminar, The Hebrew University of Jerusalem, 23 June 2015**
28. Seminar, Tel Aviv University, 17 June 2015
27. OIR seminar, Harvard-Smithsonian Center for Astrophysics, 13 March 2015
26. ITC luncheon talk, Harvard-Smithsonian Center for Astrophysics, 12 March 2015
25. **Seminar, Rutgers University, 4 December 2014**
24. **Seminar, Weizmann Institute of Science, 18 June 2014**
23. OIR seminar, Harvard-Smithsonian Center for Astrophysics, 13 November 2013
22. **Seminar, Technion, 26 June 2013**
21. PhD Seminar, Tel Aviv University, 19 June 2013
20. **Seminar, The Hebrew University of Jerusalem, 18 June 2013**
19. Seminar, Weizmann Institute of Science, 12 June 2013
18. Theory Lunch, University of Maryland, 13 May 2013
17. PhD seminar, American Museum of Natural History, 9 May 2013
16. **Astronomy Seminar, Stony Brook University, 17 April 2013**
15. **Seminar, University of Pittsburgh, 29 March 2013**
14. **Seminar, University of Pennsylvania, 30 January 2013**
13. Seminar, Columbia University, 24 January 2013
12. Informal Talk, New York University, 16 November 2012
11. Friday Coffee Talk, Space Telescope Science Institute, 12 October 2012
10. Wunch Talk, Princeton University, 10 October 2012
9. Seminar, Institute of Astronomy, University of Tokyo, 2 August 2012
8. Seminar, Kyoto University, 13 July 2012
7. Lunch Talk, Kavli IPMU, University of Tokyo, 10 July 2012
6. Seminar, American Museum of Natural History, 4 October 2011
5. Seminar, Technion (Israel Institute of Technology), 15 June 2011
4. Seminar, The Hebrew University of Jerusalem, 3 May 2011
3. Seminar, Weizmann Institute of Science, 10 November 2010
2. CAS Research Seminar, Johns Hopkins University, 7 September 2010
1. MSc Seminar, Tel Aviv University, 2 June 2010

## OUTREACH

- 9 public talks in Israel and the US in schools, universities, bars, astronomy clubs, and museums (e.g., Intrepid Sea, Air and Space Museum, New York, NY)
- 2013 – present: Participant, Adopt-a-Physicist program, <http://www.adoptaphysicist.org>
- 2013: “Travel consultant” at the Intergalactic Travel Bureau, New York, NY
- 2012 – present: AAS Astronomy Ambassador
- 2012 – present: Hayden Planetarium: answering astronomy questions from the public
- 2012: PhD Comics: “[The Secret Lives \(and Deaths\) of Stars](#)”
- 2012: “The Sun is Our Star”, article in “Einayim”, an Israeli childrens’ science magazine
- 2009 – 2013: Hebrew translator of APOD posts (bi-monthly)
- 2009 – 2011: *Ba’Shaar*: lecturing on different topics in astrophysics in junior high schools
- 2008 – 2013: *Tel-Aviv University Astronomy Club* (“*TAU AstroClub*”)

## PROFESSIONAL SERVICE

- 2013: Scientific advisor on supernova observations for *Dark Universe*, an American Museum of Natural History space show
- 2013: Participant, AAS Communicating with Washington program
- 2012 – 2014: Organizer, Astrophysics Seminar, American Museum of Natural History
- 2010: Author of a handbook on statistics and data analysis, required reading for physics lab students at Tel Aviv University and the Hebrew University in Jerusalem
- Panelist: service on NASA and NSF grant review panels
- Referee: *The Astrophysical Journal*, *Monthly Notices of the Royal Astronomical Society*
- Member: *American Astronomical Society*, *Astronomical Society of the Pacific*

## REFERENCES

- Dan Maoz                      Tel Aviv University  
Tel Aviv University, Tel-Aviv 69978, Israel  
+972-3-640-8538    maoz@astro.tau.ac.il
- Adam G. Riess                Johns Hopkins University and Space Telescope Science Institute  
3400 N. Charles St., Baltimore, MD 21218, USA  
+1-410-516-4474    ariess@stsci.edu
- Maryam Modjaz              New York University  
4 Washington Place, New York, NY 10003, USA  
+1-212-998-8909    mmodjaz@nyu.edu
- Michael M. Shara            American Museum of Natural History  
Central Park West and 79th Street, New York, NY 10024, USA  
+1-212-769-5488    mshara@amnh.org
- Steven A. Rodney            University of South Carolina  
712 Main Street, Columbia, SC 29208, USA  
+1-803-777-2599    srodney@sc.edu