
CURRICULUM VITAE

OR GRAUR

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American Museum of Natural History
Astrophysics Department
Central Park West at 79th Street
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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

- 2013 – present: *Assistant Research Scientist*, The Johns Hopkins University, working with Prof. Adam Riess
- 2013 – present: *Research Associate*, American Museum of Natural History
- 2013 – present: *Visiting Scientist*, New York University
- 2011 – present: *Mentor* in the AMNH Science Research Mentoring Program (SRMP)
- 2008 – 2011: *Teaching Assistant* in 1st- and 2nd-year Undergraduate Physics Labs, Tel-Aviv University

FIRST- AND SECOND-AUTHOR REFEREED PUBLICATIONS

6. *Progenitor constraints on the Type-Ia supernova SN2011fe from pre-explosion Hubble Space Telescope He II narrow-band observations*
Graur, O., Maoz, D., & Shara, M. M., 2014, accepted by MNRAS Letters, arXiv:1403.1878
5. *Spectroscopic Confirmation of a Redshift 1.55 Supernova Host Galaxy from the Subaru Deep Field Supernova Survey*
Frederiksen T. F., **Graur, O.**, Hjorth, J., Maoz, D. & Poznanski D., 2014, A&A, 563, 140

4. *Type-Ia Supernova Rates to Redshift 2.4 from CLASH: the Cluster Lensing And Supernova survey with Hubble*
Graur, O. and the CLASH collaboration, 2014, ApJ, 783, 28
3. *Discovery of 90 Type-Ia supernovae among 700,000 Sloan spectra: the Type-Ia supernova rate versus galaxy mass and star-formation rate at redshift ~ 0.1*
Graur, O. & Maoz, D., 2013, MNRAS, 430, 1746
2. *Supernovae in the Subaru Deep Field: the rate and delay-time distribution of Type Ia supernovae out to redshift 2*
Graur, O. and the SDF collaboration, 2011, MNRAS, 417, 916
1. *A candidate polar-ring galaxy in the Subaru Deep Field*
Finkelman, I., **Graur, O.** & Brosch, N., 2011, MNRAS, 412, 208

OTHER REFEREED PUBLICATIONS

5. *Three Gravitationally Lensed Supernovae Behind CLASH Galaxy Clusters*
Patel, B. and the CLASH collaboration (incl. **O. Graur**), 2014, accepted by ApJ, arXiv:1312.0943
Role: I discovered the supernovae and helped edit the paper.
4. *Type Ia Supernova Rate Measurements to Redshift 2.5 from CANDELS: Searching for Prompt Explosions in the Early Universe*
Rodney, S. A. and CANDELS collaboration (incl. **Graur, O.**), 2014, accepted by AJ, arXiv:1401.7978
Role: I was directly involved in all stages of the work.
3. *The Discovery of the Most Distant Known Type Ia Supernova at Redshift 1.914*
Jones, D. O. and the CANDELS collaboration (incl. **Graur, O.**), 2013, ApJ, 768, 166
Role: I was a co-discoverer of the supernova and helped edit the paper.
2. *A Type-Ia Supernova at Redshift 1.55 in Hubble Space Telescope Infrared Observations from CANDELS*
Rodney, S. A. and the CANDELS collaboration (incl. **Graur, O.**), 2012, ApJ, 746, 5
Role: I was a co-discoverer of the supernova.
1. *The Cluster Lensing and Supernova Survey with Hubble: An Overview*
Postman, M. and the CLASH collaboration (incl. **Graur, O.**), 2012, ApJS, 199, 25
Role: I calculated the predicted number of supernovae to be discovered and wrote the relevant section.

PAPERS IN PREPARATION

1. *The rates of Type-Ia and Type-II supernovae discovered in 50 000 Sloan spectra of dwarf galaxies*
Graur, O., Maoz, M., & Modjaz, M. (May 2014)
2. *A Catalog of Supernova Candidates from the CLASH and CANDELS MCT Programs*
Graur, O. et al. (July 2014)

3. *Revisiting the 1908 Leavitt catalog of variable stars*
Graur, O., Pagnotta, A., et al. (September 2014)

ASTRONOMICAL CIRCULARS AND BULLETINS

1. *Discovery of a Type Ia SN in MACSJ1423*
Rodney, S. A., Holoiën, T., Jones, D. O., **Graur, O.**, & Frederiksen, T., February 2 2013, ATel 4778
2. *Type-Ia SN 2012fr: no progenitor detected in pre-explosion HST image to $M_V \sim -5.9$ mag*
Graur, O. & Maoz, D., November 1 2012, ATel 4535
3. *Type-Ia SN 2012cg: no progenitor detected in HST pre-explosion images to $M_V \sim -6.0$ mag and $M_I \sim -5.4$ mag*
Graur, O. & Maoz, D., June 30 2012, ATel 4226
4. *No progenitor detected to $M_V \sim -7$ mag for Type-Ic SN 2012cw*
Graur, O. & Maoz, D., June 21 2012, ATel 4199
5. *Type Ia Supernova at $z = 0.261$ Discovered in HST imaging from CLASH*
Frederiksen, T. F., **Graur, O.**, Silverman, J. M., Filippenko, A. V. & Rodney, S. A., November 2 2011, ATel 3731
6. *HST MCT SN Discovery*
Rodney, S. A., **Graur, O.** & Frederiksen, T. F., June 24 2011, ATel 3451

SCHOLARSHIPS, HONORS, AND AWARDS

- 2014: AAS International Travel Grant
- 2012: Rodger Doxsey Travel Prize (221st AAS Meeting, Long Beach, CA)
- 2012: PhD Comics 2-Minute Thesis Competition winner (1 of 12; YouTube video viewed by > 65,000 unique viewers)
- 2012: WorldQuant Foundation Scholarship
- 2012: AAS International Travel Grant
- 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 research scholarship recipient (Ph.D. scholarship)
- 2008 – 2009: School of Physics and Astronomy, Tel-Aviv University research scholarship recipient (M.Sc. scholarship)
- 2003: Dean's honor list

MENTORING

- 2013 – 2014: D. Y. Chen, L. Christie-Dervaux, J. Kruk, and Z. Murray (SRMP class of 2014)

- 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. Ovdia (SRMP class of 2012)

OBSERVATIONAL EXPERIENCE

- **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

- The 223rd Meeting of the American Astronomical Society
January 5–9 2014, Washington, DC, USA (talk)
- CLASH Science Team Meeting
September 16–18 2013, London, England (talk)
- The 221st Meeting of the American Astronomical Society
January 6–10 2013, Long Beach, CA, USA (dissertation talk)
- Fall 2012 Meeting of the Astronomical Society of New York
October 20 2012, Siena College, Loudonville, NY, USA (talk)
- Supernovae Illuminating the Universe: from Individuals to Populations
September 10–14 2012, MPA/ESO/MPE, Garching, Germany (poster)
- The 219th Meeting of the American Astronomical Society
January 8–12 2012, Austin, TX, USA (poster)
- Observational Signatures of Type Ia Supernova Progenitors
Workshop: September 20–24 2010, Lorentz Center, Leiden, The Netherlands (talk)
- The 27th Jerusalem Winter School in Theoretical Physics
Held at the Hebrew University in Jerusalem, Israel (December 2009)

INVITED TALKS

1. Seminar, The Hebrew University of Jerusalem, 18 June 2013
2. Astronomy Seminar, Stony Brook University, 17 April 2013
3. Seminar, University of Pittsburgh, 29 March 2013

SEMINARS/COLLOQUIA

1. OIR seminar, Harvard-Smithsonian Center for Astrophysics, 13 November 2013
2. Seminar, Technion, 26 June 2013
3. PhD Seminar, Tel-Aviv University, 19 June 2013
4. Seminar, Weizmann Institute of Science, 12 June 2013
5. Theory Lunch, University of Maryland, 13 May 2013
6. PhD seminar, American Museum of Natural History, 9 May 2013
7. Seminar, University of Pennsylvania, 30 January 2013
8. Seminar, Columbia University, 24 January 2013
9. Informal Talk, New York University, 16 November 2012
10. Friday Coffee Talk, Space Telescope Science Institute, 12 October 2012
11. Wunch Talk, Princeton University, 10 October 2012
12. Seminar, Institute of Astronomy, University of Tokyo, 2 August 2012
13. Seminar, Kyoto University, 13 July 2012
14. Lunch Talk, Kavli IPMU, University of Tokyo, 10 July 2012
15. Seminar, American Museum of Natural History, 4 October 2011
16. Seminar, Technion (Israel Institute of Technology), 15 June 2011
17. Seminar, Hebrew University, 3 May 2011
18. Seminar, Weizmann Institute of Science, 10 November 2010
19. CAS Research Seminar, Johns Hopkins University, 7 September 2010
20. MSc Seminar, Tel-Aviv University, 2 June 2010

OUTREACH

- October 2013: Participant, Adopt-a-Physicist program, <http://www.adoptaphysicist.org>
- July 2013: 'Travel consultant' at the Intergalactic Travel Bureau, New York, NY
- June 2013: 'The Universe is My Lab,' talk given as part of the Tel-Aviv University AstroClub
- April 2013: 'Dark Matter & Dark Energy,' talk given at the Institute for Retired Professionals, New York, NY
- March 2013: 'The Universe is My Lab,' talk given at the Rolnick Observatory, Westport, CT
- February 2013: 'The Universe is My Lab,' talk at School of the Future, New York, NY
- 2012 – present: AAS Astronomy Ambassador
- November 2012: PhD Comics 2-Minute Thesis entry (<http://www.phdcomics.com/tv/>)
- October 2012: 'The Universe is My Lab', talk given as part of the Columbia Astronomy Public Outreach Program
- October 2012: 'The Sun is Our Star', article in 'Einayim', an Israeli childrens' science magazine
- 2012 – present: Hayden Planetarium: answering astronomy questions from the public

- June 2011: ‘When Stars Die’, talk given at the Givatayim Observatory, Israel
- 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*”): organizing public lectures, guided night-sky observations and other outreach activities

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 – present: 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
- Referee: *The Astrophysical Journal*

SELECT LITERARY PUBLICATIONS

- **The War Painter** (Toby Press, Jerusalem 2009)
- “Kadish of Life,” published in **One is Our God**, eds. Y. Avitov and R. Yagil (Carmel, Jerusalem 2008)
- “Pintor de la Guerra,” published in **Pueblo del Libro: Cuentistas de Israel**, ed. Y. Avitov (Libresa, Quito 2007)
- With A. Zigler, eds., **Stories from Ha’keshet Ha’hadasha: the first four years** (Carmel, Jerusalem 2007); includes the story “Chop Suey”
- “A Sunday Afternoon on the Island of La Grande Jatte,” 2007 Ha’aretz short story competition, winner (1 of 3)
- With Y. Tomashov, eds., **Almanach: a literary journal**, Vol. 1–2, 2006–2007
- With N. Goren, “I don’t know, ask me tomorrow,” a neo-futurist play, Small-Bama 5 Festival, Tel Aviv University, 23–26 October 2006
- “The War Painter,” *The Kit-Cat Review*, March 2006, 4, 3
- “Moran’s Sunset,” *RE:AL - The Journal of Liberal Arts*, Spring/Summer 2005, 30.1
- 20 short stories published in Hebrew in different journals between 2004–2008

MILITARY SERVICE

2000 – 2003: Compulsory military service in the Israeli Defense Forces