

Yossef Zenati

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EDUCATION	JHU- Johns Hopkins University , Baltimore, MD, USA 2021- Technion - Israel Institute of Technology , Haifa, Israel PhD, Physics. Advisor: Hagai B. Perets 2016 - 2020 TAU - Tel-Aviv University- Faculty of Exact Sciences , Tel-aviv, Israel MSc Physics, summa cum laude. Advisors: Shay Zucker and Amiel Sternberg 2010 - 2012 Technion - Israel Institute of Technology , Haifa, Israel B.Sc Physics and Geo-information engineering. 2004 - 2007
AWARDS	<ul style="list-style-type: none">• ISEF postdoc fellowship prize 2022• The Council for Higher Education (CHE) scholarship for postdoc 2021• Irwin and Joan Jacobs Excellence Fellowship for outstanding graduate students: Yuhud and Cohen 2017• Council for Higher Education - Planning and Budgeting Committee Technion's Graduate Student Research Grant 2017 - 2019• Technion's Graduate Student Research Grant 2016 - 2019• Tel-Aviv University- Faculty of Exact Sciences - summa cum laude 2011• Technion's Undergraduate Dean's list 2007
VISITING SCIENTIST	<ul style="list-style-type: none">• Hosted by Prof. Brian Metzger (CCA, New York, USA) 2022• Hosted by Dr. Armin Rest (STScl, Baltimore, MD, USA) 2021• Hosted by Prof. Enrico Ramirez-Ruiz (U. of CA Santa Cruz, CA, USA) 2019• Hosted by Prof. Brian Metzger (U. of Columbia, New York, IL, USA) 2019,2018• Hosted by Prof. Yuri levin (CCA, New York, IL, USA) 2019• Hosted by Prof. Robert Fisher (U. of Massachusetts Dartmouth, Boston, USA) 2019• Hosted by Prof. Silvia Toonen (U. of Amsterdam, Amsterdam, Netherlands) 2018
TEACHING EXPERIENCE	<ul style="list-style-type: none">• Teaching Assistant - Physics 2, 2st-year undergraduate course 2019/20, winter• Teaching Assistant - Modern Physics, 2st year undergraduate course 2018,2020 Spring• Teaching Assistant - Quantum physics 2, 3rd year undergraduate course 2018/19, Winter• Teaching Assistant - Physics 2MM, 1st year undergraduate course 2017, Winter• Teaching Assistant - Astrophysics & Cosmology, 3rd year undergraduate course 2016, Spring• Teaching Assistant - Classical Physics 1P, 1st year undergraduate course 2016, Winter
MENTORING & OUTREACH	<ul style="list-style-type: none">• Bore Gao (Ph.D student, JHU) in addition with Prof.Colin Norman 2022 - present• Qinan Wang (Graduate student, JHU) in addition with Dr.Armin Rest 2021 - present• Mentoring and teaching in the "AL-MARAM" for Science - Israel Arabic science guide the schools student and teachers project, Israel 2018 - present• Mor Rozner (Graduate student, Technion) in addition with Prof. H.B Perets 2019 - 2020
PROFESSIONAL DEVELOPMENT	<ul style="list-style-type: none">• SaasFee2022 GW School (SaaS Fee, Swiss) Dec 2021• 34rd Winter school of Theoretical Physics (Jerusalem, Israel) 2017 - 2018• MESA Summer School (Santa Barbara, CA, USA) August 2016

CONFERENCES,	• Workshop, SuperVirtual 2022,	Oct 2022
SEMINAR AND	• Workshop, TDAMM22 NASA,Annapolis, USA	Aug 2022
LUNCH TALK	• Workshop, BOOM explosive transients, University of Illinois, USA	July 2022
	• Seminar, Monash University, Melbourne, Australia,	May 2022
	• Workshop, Nuclear burning in massive stars, YITP-Monash Uni, Au,	July 2021
	• Workshop, TCAN2021, RIT, USA,	July 2021
	• Seminar, HUJI University, Jerusalem, Israel,	July 2021
	• Seminar, STScl Institute, Baltimore, USA,	March 2021
	• Seminar, CENTRA Institute, Lisbon, Portugal (invited),	March 2021
	• Seminar, Nordita Institute, Stockholm, Sweden,	Dec 2020
	• Seminar, Johns Hopkins University (JHU), Baltimore, USA,	Nov 2020
	• Seminar, Technion (IIT), Haifa, Israel,	Jun 2020
	• Seminar, Tel-Aviv University (TAU), Tel-Aviv, Israel	Dec 2019
	• Lunch talk, Caltech, Pasadena CA, USA	Nov 2019
	• IAU Symposium 357, Hawaii, USA (talk)	Oct 2019
	• Compact White Dwarf Binaries (CWDB 2019), Yerevan, Armenia (talk)	Sep 2019
	• Progenitors of Type Ia Supernovae, Lijiang, China (talk) (invited)	Aug 2019
	• The Beginnings and Ends of Double White Dwarfs, Copenhagen, Denmark (talk)	Jul 2019
	• Technion Physics Graduate project, Haifa, Israel (talk)	Jun 2019
	• Seminar, University of Maryland, Washington DC, USA	April 2019
	• Seminar, Columbia University, New York, USA	Feb 2019
	• Seminar, Brown University, Boston, USA	Feb 2019
	• Seminar, University of Massachusetts Dartmouth, Boston, USA	June 2019
	• Lunch talk, Columbia University, New York, USA	July 2018
	• TAPIR Special Seminar, Caltech, Pasadena CA, USA	July 2018
	• Observational Signatures of SN Ia, Leiden, the Netherlands (talk)	Feb 2018
	• Astronomy Israel day, Jerusalem, Israel (talk)	Jan 2018
	• The Physics of Extreme - Gravity Stars, Nordita Ins., Stockholm, Sweden (talk)	Jun 2017

THE DRUZE COMMUNITY - MY HERITAGE AND COMMUNITY	<p>The Druze are an ethnoreligious group living in several countries in the middle east as a unique religious and ethnic minority. In my country (Israel) we constitute ~ 1.6 percent of the total population, inhabiting 16 villages in northern Israel. Druze students tend to study engineering, education, bio-medical sciences, law, and other humanities. In fact, I'm the first ever Druze in Israel to do a Ph.D. in physics, serving as an example for the young generation in my community. Moreover, during my Ph.D. I gave above 60 motivational talks to high school students and invited talks in social activities. I also volunteer at schools in several villages, helping students study science.</p>
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EMPLOYMENT	Military service - Israel Air Force, Major rank	2007 - 2015
	Maj. Gen. of Israel Air Force, (awards)	2009
	Military service - The Excellent IDF captain , (awards, program)	2013
	Brig. Gen. of Israel Air Force, (awards)	2014

PUBLISHED-
FIRST AUTHOR

Total number of papers = 29, first-author papers = 10, number of citations = 409

1. **Zenati, Y.**, Wang,Q. et al, [Evidence for Extended Hydrogen-Poor CSM in the Three-Peaked Light Curve of Stripped Envelope Ib Supernova], ApJ, AAS40729
2. **Zenati, Y.**, Perets H.B., Dessart,L., Toonen,S., Jacobson-Galn, Wynn V., and Armin,R., [The origins of Calcium-rich supernovae from disruptions of CO white-dwarfs by hybrid He-CO white-dwarfs], ApJ, AAS40760
3. **Zenati, Y.**,and Vishniac,Ethan. [Conserving Local Magnetic Helicity in Numerical Simulations.], APJ. AAS39993
4. **Zenati, Y.**, D.Siegel, B.Metzger., and Perets,H. B., [Nuclear Burning in Collapsar Accretion Disks.], MNRAS, 2020MNRAS.499.4097Z
5. **Zenati, Y.**, Bobrick,A., and Perets,H. B. [NS-WD mergers: Faint, rapid red transients from Neutron star - CO white-dwarf mergers.], MN-19-3151-MJ.
6. **Zenati, Y.**, Perets,H. B.,and Toonen.S., [Neutron star-white dwarf mergers: early evolution, physical properties, and outcomes.], MNRAS, 486, 2, June 2019
7. **Zenati, Y.**, Toonen.S., and Perets, H. B.,[Formation and evolution of hybrid He-CO white dwarfs and their properties.], MNRAS, 482,1, Jan 2019
8. **Zenati, Y.** and Fisher, R., [Universality and Non-Universality in Distributed Nuclear Burning.], PRL, LP15989 Zenati

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FIRST AUTHOR

9. **Zenati, Y.**, and Bobrick,A., [Magnetic Amplification in Neutron star- White Dwarf Mergers], Nov 2022, MNRAS
10. **Zenati, Y.**, Perets H.B., Toonen,S., and Bobrick,A., [Normal Type Ia supernovae from hybrid He-CO white dwarfs disruption by CO white dwarfs.], Nature.

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AUTHOR

11. **Zenati, Y.**, and Krolik, Julian H., [Binary Neutron Stars: The Angular Momentum Evolution],

PUBLISHED-
CO-AUTHOR

12. Angus,C.R., Baldassare,V.F., Mockler,B., Foley,R.J., Ramirez-Ruiz,E.; Raimundo,S.I., French,K. D., Auchettl,K., Pfister,H., Gall,C., Hjorth,J., Drout,M.R., Alexander,K.D., Dimitriadis,G., Hung,T., Jones,D.O., Rest,A., Siebert,M.R., Taggart,K., Terreran,G., Tinyanont,S., Carroll,C.M., DeMarchi,L., Earl,N., Gagliano,A., Izzo, L., Villar,V.A., **Zenati, Y.**, Arendse,N., Cold,C., de Boer,T.J.L., Chambers,K. C., Coulter,D. A., Khetan, N., Lin,C.C.; ...[A fast rising tidal disruption event from a candidate intermediate mass black hole], Aug 2022, NATASTRON-22045248C

13. W.V.Jacobson-Galan, P.Venkatraman, R.Margutti,...V.A.Villar, Q.Wang, S.K.Yadavalli, **Y.Zenati**, and A. Zenteno [The Circumstellar Environments of Double-peaked, Calcium-strong Transients 2021gno and 2021inl], Jun 2022, ApJ Volume 932, Issue 1, id.58, 25 pp.
14. Metzger,B.D., **Zenati,Y.**, Chomiuk,L., Shen, Ken J., Strader,J. [Transients from the Cataclysmic Deaths of Cataclysmic Variables.], Aug 2021, ApJ AAS33908
15. Bobrick,A., **Zenati, Y.**, Perets, H. B., Davies, Melvyn B., Church, Ross. [Transients from ONE White-Dwarf - Neutron-Star/Black-Hole Mergers.], MN-21-3151-MJ.
16. Pakmor, R. **Zenati, Y.**, Perets H.B., and Toonen,S., [Thermonuclear explosion of a massive hybrid HeCO white-dwarf triggered by a He-detonation on a companion.], MNRAS, 2021MNRAS.503.4734P
17. Wang,Q., Rest,A., **Zenati,Y.**, Ridden-Harper,R., Dimitriadis, G.,Narayan,G., Villar, V. Ashley., Magee, Mark R., Foley, Ryan J., ... [SN2018agk: A prototypical Type Ia Supernova with a smooth power-law rise in Kepler (K2).], Aug 2021, ApJ AAS34411
18. Armstrong, P., Tucker,B.E., Rest,A., Ridden-Harper,R.,**Zenati,Y.** ,Piro,A.L., Hinton,S., Lidman,C.,Margheim,S., Narayan, G., Shaya,E., ... [SN2017jgh - A high-cadence complete shock cooling lightcurve of a SN IIb with the Kepler telescope.], MNRAS, 2021MNRAS.tmp.2018A
19. Terreran, G., Jacobson-Galan, W. V., Groh, J. H., Margutti, R., Coppejans, D. L., Dimitriadis, G., Kilpatrick, C. D., Matthews, D. J., Siebert, M. R., Angus, C. R., Brink, T. G. , Filippenko, A. V., Foley, R. J., Jones, D. O., Tinyanont, S., Gall, C., Pfister, H., **Zenati, Y.**, Ansari, Z., Auchettl, K. El-Badry, K., Magnier, E. A., and Zheng, W.[The Early Phases of Supernova 2020pni: Shock-Ionization of the Nitrogen-Enriched Circumstellar Material.], May 2021, ApJ AAS32418
20. Weng, J., Zhou, P., Chen, C., Leung, S.,Toonen, S.,Perets, H. B., Nomoto, K., **Zenati, Y.**, and Vink, J., [Spatially Resolved X-ray Study of Supernova Remnant G306.3-0.9 with Unusually High Calcium Abundance.], July 2021, ApJ AAS33171
21. Gagliano, A., Izzo,L., Kilpatrick, Charles D., Mockler,B., Vincente Jacobson-Galn, W., Terreran,G., Dimitriadis,G., **Zenati,Y.**, Auchettl,K., Drout, Maria R., Narayan, G., Foley, Ryan J., Margutti, R., Rest, A., ... [An Early-Time Optical and Ultraviolet Excess in the type-Ic SN 2020oi.], APJ, May 2021
22. Samaporn Tinyanont., R.Ridden-Harper, R.J.Foley, V. Morozova, C.D. Kilpatrick, G.Dimitriadis, L. DeMarchi, Gagliano, W. V. Jacobson-Galn, A. Messick, J.D.R.Pierel, A.L.Piro, E.Ramirez-Ruiz, M.R.Siebert, K.C. Chambers, K.E.Clever, D.A.Coulter, K.De, M.Hankins, T.Hung, S.W.Jha, C.E.Jimenez Angel, D.O.Jones, M.M.Kasliwal, C.C.Lin, R.Marques-Chaves, R.Margutti, A.Moore, I. Prez-Fournon, F.Poidevin, A.Rest, R.Shirley, C.S.Smith, E.Strasburger, J.J. Swift, R.J. Wainscoat, Q.Wang, **Y.Zenati**, [Progenitor and Close-In Circumstellar Medium of Type II Supernova 2020fqv from High-Cadence Photometry and Ultra-Rapid UV Spectroscopy.], MNRAS, MN-21-2841-MJ.R1

23. Jacobson-Galn, Wynn V., Margutti, R., Kilpatrick, Charles D., Raymond, J., Berger, E., Blanchard, Peter K., Bobrick, A., Foley, Ryan J., Gomez, S., Hosseinzadeh, G., Milisavljevic, D., Perets, H. B., Terreran, G., and **Zenati, Y.** [Late-time Observations of Calcium-rich Transient SN 2019ehk Reveal a Pure Radioactive Decay Power Source.], APJ, 2021ApJ...908L..32J
24. Jacobson-Galn, Wynn V., Margutti, R., Kilpatrick, Charles D., Hiramatsu, D., Perets, H. B., Khatami, D., Foley, Ryan J., Raymond, J., Yoon, Sung-Chul., Bobrick, A., **Zenati, Y.**, Galbany, L., Andrews, J., ... [SN 2019ehk: A Double-peaked Ca-rich Transient with Luminous X-Ray Emission and Shock-ionized Spectral Features.], APJ, 2020ApJ...898..166J
25. Toonen, S., Perets, H. B., Igoshev, A. P., Michaely, E., and **Zenati, Y.**, *The demographics of neutron star - white dwarf mergers. Rates, delay-time distributions, and progenitors*, A&A, 619, A53, Nov 2018,
26. Grishin, E., Perets, H. B., **Zenati, Y.** and Michaely E., [Generalized Hill-Stability Criteria for Hierarchical Three-Body Systems at Arbitrary Inclinations.], MNRAS, 466, 266 (2017)
27. P.D. Aloe et al. 2022 [The Young Supernova Experiment Data Release 1 (YSE DR1): Light Curves and Photometric Classification of 1975 Supernovae], Nov 2022, arXiv:2211.07128
28. K. W. Davis et al. 2022 [SN 2022ann: A type Icn supernova from a dwarf galaxy that reveals helium in its circumstellar environment], Nov 2022, arXiv:2211.05134
29. Wang, Q., Armstrong, P., **Zenati, Y.**, Rest, A., Ridden-Harper, R., Foley, Ryan J., Villar, V. Ashley. [Revealing the Progenitor of SN 2021zby with Shock Cooling Light Curve from TESS], Oct 2022, ApJ

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