

# TEA TEMIM

## PERSONAL DATA

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Position: Research Astronomer  
 Institution: Princeton University  
 Department of Astrophysical Sciences  
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 Princeton, NJ 08544  
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## RESEARCH INTERESTS

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- Supernovae and Supernova Remnants
- Pulsar wind nebulae
- Dust production and processing
- Interstellar Medium

## POSITIONS HELD

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2021 - present Princeton University, Department of Astrophysical Sciences  
 Position: Research Astronomer  
 2016 - 2021 Space Telescope Science Institute  
 Position: STScI Scientist for the James Webb Space Telescope  
 2014 - 2016 NASA Goddard Space Flight Center,  
 University of Maryland College Park  
 Position: Research Associate  
 2010 - 2013 NASA Goddard Space Flight Center  
 Position: NASA Postdoctoral Fellow  
 2009 - 2010 Harvard-Smithsonian Center for Astrophysics  
 Position: Postdoctoral Researcher  
 2007 - 2009 Harvard-Smithsonian Center for Astrophysics  
 Position: Predoctoral Fellow  
 Advisor: Dr. Patrick Slane  
 2003 - 2007 University of Minnesota, Department of Astronomy  
 Position: Graduate Research Assistant  
 Advisor: Profs. Robert D. Gehrz and Charles E. Woodward

## EDUCATION

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2009 Ph.D. Astrophysics, University of Minnesota  
 Thesis: Multi-wavelength Study of Pulsar Wind Nebulae and Supernova Remnants  
 Advisors: Dr. Patrick Slane (Harvard-Smithsonian CfA), Prof. Robert D. Gehrz,  
 Prof. Charles E. Woodward  
 2006 M.S. Astrophysics, University of Minnesota  
 Thesis: Spitzer Infrared Imaging and Spectroscopy of Supernova Remnants  
 Advisors: Prof. Robert D. Gehrz and Prof. Charles E. Woodward  
 2003 B.S. Physics, University of Minnesota, Institute of Technology  
 2003 B.S. Astrophysics, University of Minnesota, Institute of Technology

## FELLOWSHIPS

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2010 NASA Postdoctoral Fellowship  
 2007 Smithsonian Astrophysical Observatory Predoctoral Fellowship  
 2004 NASA Space Grant Fellowship  
 2001 LaVerne and Ted Jones Astrophysics Scholarship

## SUCCESSFUL GRANTS &amp; OBSERVING PROPOSALS

- 2023 Blair et al., Hubble Space Telescope, Cycle 31 (co-I)  
Expansion and Evolution of the Crab Nebula: A 23+ Year HST Perspective
- 2023 Larsson et al., Hubble Space Telescope, Cycle 31 (co-I)  
Expanding shocks and the emergence of the compact object in Supernova 1987A
- 2023 Jha et al., James Webb Space Telescope, Cycle 2 proposal (co-I)  
See Through Supernovae: Nebular Spectroscopy of Exploding White Dwarfs
- 2023 Ashall et al., James Webb Space Telescope, Cycle 2 DDT proposal (co-I)  
Dust Our Luck– Measuring Molecule and Dust Formation in M101’s Hydrogen-rich SN 2023ixf
- 2023 Shahbandeh et al., James Webb Space Telescope, Cycle 2 DDT proposal (co-I)  
Near- and Mid-IR Observations to Probe Dust Formation in the Remarkably Nearby Stripped-Envelope Supernova 2023dbc
- 2023 Shahbandeh et al., James Webb Space Telescope, Cycle 2 (co-I)  
Probing Early Dust Formation in the Universe via Stripped-Envelope Supernovae
- 2023 Larsson et al., James Webb Space Telescope, Cycle 2 (co-I)  
The nature of the compact object in SN 1987A
- 2023 Drout et al., James Webb Space Telescope, Cycle 2, co-I  
Detecting the Synthesis of the Heaviest Elements with Photometry of a Kilonova in the Optically Thin Phase
- 2023 Meixner et al., James Webb Space Telescope, Cycle 2 GTO (co-I)  
SN 1987A: The Formation and Evolution of Dust in a Supernova Explosion
- 2023 Pierel et al., James Webb Space Telescope, Cycle 1 DDT proposal (co-I)  
Unique Constraints on Early Dust Growth in Core-Collapse Supernovae
- 2022 Fesen et al., Hubble Space Telescope, Cycle 30 (co-I)  
A Multi-Bandpass ACS Survey of Cassiopeia A: Keeping Up with its Rapidly Evolving Structure
- 2022 NASA Astrophysics Data Analysis Program, **PI: Temim**  
Supernova Progenitor and Explosion Properties of Galactic Supernova Remnants
- 2022 NSF Collaborative Research Proposal, **Co-PI: Temim**  
Constraining Supernova Progenitor Systems and Explosion Mechanisms Through 3D Reconstruction of Supernova Remnants
- 2021 Gazari et al., Hubble Space Telescope, Cycle 29 (co-I)  
This is NUTS! A Narrow-field Ultraviolet Transient Survey
- 2021 Temim et al., James Webb Space Telescope, Cycle 1, **PI: Temim**  
The Origin of the Crab Nebula
- 2021 Milisavljevic et al., James Webb Space Telescope, Cycle 1, co-I  
JWST Survey of the Prototypical Core-collapse Supernova Remnant Cassiopeia A
- 2021 Jha et al., James Webb Space Telescope, Cycle 1, co-I  
See Through Supernovae: Nebular Spectroscopy of Exploding White Dwarfs
- 2021 Matsuura et al., James Webb Space Telescope, Cycle 1, co-I  
Shocks and expanding ejecta in Supernova 1987A
- 2021 Foley et al., James Webb Space Telescope, Cycle 1 (co-I)  
Nucleosynthesis, Astrophysics, and Cosmology with IR Observations of a Gravitational Wave Counterpart
- 2021 Kilpatrick et al., James Webb Space Telescope, Cycle 1 (co-I)  
Nebular Spectroscopy of a Kilonova with JWST
- 2021 Fox et al., James Webb Space Telescope, Cycle 1 (co-I)  
Disentangling the Origin of Dust in Type II<sub>n</sub> Supernovae
- 2021 Misselt et al., James Webb Space Telescope, Cycle 1 GTO (co-I)  
Physics and Chemistry of PDR Fronts
- 2021 Wright, Meixner et al., James Webb Space Telescope, Cycle 1 GTO (co-I)  
SN 1987A: The Formation and Evolution of Dust in a Supernova Explosion
- 2021 Meixner et al., James Webb Space Telescope, Cycle 1 GTO (co-I)  
I Zw 18: Dust Life Cycle at Very Low Metallicity
- 2021 Meixner et al., James Webb Space Telescope, Cycle 1 GTO (co-I)  
NGC 6822: Dust Life Cycle Study of a Nearby Low Metallicity Galaxy

- 2017 Castro et al., NASA Fermi Guest Investigator, Cycle 10 (co-I)  
Characterizing the Gamma-ray Emission from Pulsar Wind Nebulae with Fermi-LAT
- 2016 Temim et al., XMM-Newton AO-16 (PI)  
Understanding the Evolution of Composite SNRs: An XMM Study of MSH 15-56, **PI: Temim**  
350 ks
- 2016 Temim et al., NuSTAR Cycle 2 (PI)  
Spectral Evolution of Crushed Pulsar Wind Nebulae, **PI: Temim**, 75 ks
- 2016 Gelfand et al., NuSTAR Cycle 2 (co-I)  
The Initial Spin Period of PSR J1930+1852 in PWN G54.1+0.3, 80 ks
- 2016 Borkowski, Reynolds & Temim, SOFIA (co-I)  
Probing Supernova Ejecta Dust with Stellar Lightbulbs: Mid-IR Imaging of G54.1+0.3
- 2015 Temim et al., Chandra X-ray Observatory proposal (PI)  
Chandra Observation of the Composite SNR MSH 15-56, **PI: Temim**, 175 ks
- 2015 Temim et al., Suzaku X-ray Satellite, Cycle 10 proposal (PI)  
A Suzaku Observation of the MSH 15-56 Shell, **PI: Temim**, 150 ks
- 2015 Laming et al., NASA Astrophysics Data Analysis Program (ADAP) proposal  
The Inner Ejecta and the Infrared Spectrum of Cassiopeia A
- 2014 Dwek & Temim, NASA ADAP proposal, **Co-PI: Temim**  
Supernova Remnants as Laboratories for Determining the Properties of Ejecta Dust and Processing of Dust Grain in Shocks
- 2013 Dwek et al., NASA Astrophysics Data Analysis Program (ADAP) proposal (Co-I)  
The Origin and Evolution of Dust in the Large Magellanic Cloud
- 2012 Slane et al., Large Chandra X-ray Observatory proposal (Co-I)  
A Deep Chandra Observations of MSH 11-62, 375 ks
- 2011 Temim et al., Herschel Space Observatory proposal (PI)  
PACS Observations of SN Ejecta and Dust in the Composite SNR Kes 75, **PI: Temim**
- 2010 Temim et al., Herschel Space Observatory proposal (PI)  
Imaging and Spectroscopy of the IR Shell Surrounding the PWN G54.1+0.3, **PI: Temim**

#### LEADERSHIP AND SERVICE ACTIVITIES FOR JWST (2015–2022)

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- Mid-Infrared Instrument (MIRI) Imaging Lead  
*Ensuring safe operation and maximal science return of the MIRI instrument on JWST*
- Planning of MIRI commissioning and development of analysis tools for commissioning data
- Development and review of the Cycle 1 calibration strategy for the MIRI imager
- Development of analysis tools for calculating distortion transforms from commissioning data
- Cross-instrument JWST Photometry Working Group member
- JWST Absolute Flux Calibration Working Group member
- JWST data pipeline testing
- Optical Telescope Element and Integrated Science (OTIS) testing at the Johnson Space Center
- JWST commissioning shifts at the Mission Control Center (MIRI representative)

#### RECENT PROFESSIONAL SERVICE

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- Member of the Chandra Users Committee, 2022–2025
- Elected Member of the High-Energy Astrophysics Division Executive Committee, 2022–2025
- Scientific Organizing Committee, STScI Workshop, Transients In Space, 2025
- Scientific Organizing Committee, 25 Years of Chandra Science, Boston, 2024
- Scientific Organizing Committee, EAS 2024 Special Session, Italy, 2024
- Scientific Organizing Committee, Supernova Remnant Conference, Greece, to be held in June 2024

- Member of Climate Committee for Equity and Inclusion, 2021 –  
*Department of Astrophysical Sciences, Princeton University*
- HEAD Special Session organizer: Tales of Galactic Remnants (AAS), 2022
- Scientific Organizing Committee Member, Chandra Science Workshop, 2022  
*Using Chandra to Explore the Connection Between SNe, Their Remnants, and Their Progenitors*
- Scientific Organizing Committee Member, EAS2022 Special Session, 2022  
*The Astonishing Variety of Neutron Star Neighbourhoods*
- Member of the Women in Astronomy Forum (WIAF), STScI (2016–2021)
- Referee for numerous journal articles: ApJ, ApJL, A&A, Science, MNRAS
- Chandra Cycle 23 Panel Review, Deputy Chair, June 2020
- Organizer and co-chair of the 2020 COSPAR Session E1.2  
*The Remnants of Supernova Explosions*
- Organizer and co-chair of the 2019 STScI Spring Symposium  
*The Deaths and Afterlives of Massive Stars*
- Reviewer and co-chair on numerous NASA observing and theory proposal review panels

#### INVITED TALKS

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| Feb 2024  | Astronomy Colloquium, STScI/JHU  |
| Feb 2024  | Astronomy Seminar, Towson University   |
| Sep 2023  | First Year of JWST Science Conference, Baltimore, MD                                     |
| Aug 2023  | SuperNova EXplosions (SNEX) Conference, Haifa, Israel                                    |
| May 2023  | Astronomy Colloquium, NRAO/University of Virginia  |
| July 2023 | Pulsar Wind Nebula Workshop, Columbia University   |
| Apr 2023  | Talk at the <i>Chandra</i> Operations Control Center, Burlington, MA                     |
| Apr 2023  | Astronomy Colloquium, Harvard University, CfA  |
| Mar 2023  | Astronomy Colloquium, George Washington University                                       |
| Jan 2023  | Astronomy Seminar, Columbia University   |
| Sep 2022  | Review talk, Workshop: 3D Supernova (Remnants), Valencia, Spain                          |
| Feb 2022  | Physics Colloquium, Florida State University   |
| Dec 2022  | Pulsar Wind Nebula Mini-Workshop, Columbia University                                    |
| Dec 2021  | Compact Object Lunch Talk, CCA   |
| Nov 2021  | JWST Cycle 1 Live-Streamed Science Sampler, Space Telescope Science Institute            |
| Dec 2020  | Brown Bag Seminar, New York University   |
| Dec 2020  | Purdue University Guest Lecture on JWST  |
| June 2019 | Review talk, XMM Workshop: Astrophysics of Plasmas, Madrid, Spain                        |
| June 2019 | Astronomy Colloquium, National Observatory of Athens                                     |
| June 2019 | Review talk, Supernova Remnants: An Odyssey in Space After Stellar Death, Chania, Crete  |
| May 2019  | Review talk, Fifty-One Erg International Workshop, North Carolina State University       |
| Mar 2019  | Astronomy Colloquium, Carnegie DTM, Washington, DC                                       |
| Oct 2018  | Astrophysics Seminar, Florida State University   |
| Oct 2018  | Astrophysics Seminar, Purdue University  |
| Apr 2018  | Review talk, New advances in NIR Type Ia Supernova Science, University of Pittsburgh     |
| Mar 2017  | SOFIA Community Tele-Talk Series   |
| Jan 2017  | The Transient Universe with JWST Workshop, Harvard-Smithsonian CfA                       |
| Dec 2016  | Astrophysics Colloquium, Penn State University   |
| Oct 2016  | The Ohio State University CCAPP Seminar  |
| Aug 2016  | Physics Colloquium, The University of Vermont  |
| June 2016 | Review talk, Workshop on Modeling Pulsar Wind Nebulae, Barcelona, Spain                  |
| June 2016 | Review talk, Supernova Remnants: An Odyssey in Space After Stellar Death, Chania, Greece |

- Mar 2016 Astronomy Colloquium, University of Wisconsin – Madison
- Oct 2015 Review talk, Feedback in the Magellanic Clouds Workshop, STScI
- May 2015 Princeton University Department of Astrophysical Sciences Seminar
- Apr 2015 Rutgers University Astronomy Group Seminar
- Apr 2015 Physics & Astronomy Colloquium, Clemson University
- Mar 2015 Astronomy Colloquium, University of Michigan
- Mar 2015 New York University (NYU) Astrophysics Seminar
- Dec 2014 New York University (NYU), Abu Dhabi, Astrophysics Seminar
- Sep 2014 Colloquium, United States Naval Observatory, Washington, DC
- Dec 2013 NASA Goddard Space Flight Center, Division Director's Seminar
- Nov 2013 George Washington University Astronomy Seminar
- Jul 2013 University of California at Berkeley Astronomy Department Seminar
- Jul 2013 Los Alamos National Laboratory, Los Alamos, NM
- May 2012 Space Telescope Science Institute, CSM/ISM Journal Club
- Feb 2011 NASA Goddard Space Flight Center Astrophysics Division Seminar
- May 2010 NASA Goddard Space Flight Center SEAL Seminar
- May 2007 A Workshop On the Future of Supernova Remnant Research, Honolulu, HI

#### OTHER CONFERENCE ABSTRACTS & TALKS

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- Aug 2022 Supernova Progenitor of SNR G292.0+1.8  
Chandra Science Workshop 2022, Cambridge, MA
- Aug 2017 X-ray observations of the Crushed PWN and Rapidly Moving Pulsar in SNR MSH 15-56  
AAS HEAD Meeting, Idaho
- Aug 2017 Supernova Ejecta and Dust Around Pulsar Wind Nebulae  
HotSci Talk, Space Telescope Science Institute
- Aug 2017 X-ray observations of the Crushed PWN and Rapidly Moving Pulsar in MSH 15-56  
American Astronomical Society, HEAD meeting #16, Sun Valley, ID
- Aug 2017 Supernova Ejecta and Dust Around Pulsar Wind Nebulae  
Hot Sci Talk, Space Telescope Science Institute
- Jun 2015 Deep Chandra Observations and Hydrodynamic Modeling of SNR G327.1-1.1  
FOE, International Workshop on SNRs, North Carolina State University
- Jan 2015 *Origin of Dust in the Magellanic Clouds*  
Talk at the American Astronomical Society Meeting, Seattle, WA
- Nov 2014 Deep Chandra Observations of the Composite Supernova Remnant G327.1-1.1  
Fifteen Years of Science with Chandra Symposium, Boston, MA
- Sep 2014 Supernovae as Drivers of Dust Evolution in Galaxies  
Harvard-Smithsonian Center for Astrophysics OIR Seminar
- Sep 2014 Dust Destruction by Supernova Remnants in the Magellanic Clouds  
Talk at the Mega-SAGE Workshop at NRAO, Charlottesville, VA
- Aug 2014 Dust Destruction by Supernova Remnants in the Magellanic Clouds  
Talk at the Supernovae in the Local Universe Conference, Coffs Harbour, Australia
- Aug 2013 Multi-wavelength Observations of Pulsar Wind Nebulae Evolving inside SNRs  
Talk at the Supernovae and Gamma-Ray Bursts Workshop, Yukawa Institute for Theoretical Physics, Kyoto University
- Sep 2013 Dust Destruction by Supernova Remnants in the Magellanic Clouds  
Talk at the MEGA-Sage Workshop, Max Planck Institute for Astronomy
- May 2013 Supernova Ejecta and Dust Illuminated by Pulsar Wind Nebulae  
Talk at the XMM-Newton Workshop on Energetic Phenomena in Isolated Neutron Stars, Pulsar Wind Nebulae and Supernova Remnants, ESAC, Madrid, Spain
- Nov 2012 Supernova Dust Illuminated by Pulsar Wind Nebulae

- Aug 2012 Talk at the Dust in Core-collapse Supernovae meeting, Ascona, Switzerland  
 Aug 2012 Supernova Dust and Ejecta Illuminated by Pulsar Wind Nebulae  
 Talk at the Cosmic Kaleidoscope meeting: Pulsars and their Nebulae, Supernova Remnants, and more, Kruger Park, South Africa
- Jun 2012 *High-Energy Emission from the Composite Supernova Remnant MSH 15-56*  
 American Astronomical Society Meeting #220, Anchorage, AK
- Aug 2011 Dust and Gas Properties in the Composite Supernova Remnant Kes 75  
 Explosive Ideas about Massive Stars meeting, Stockholm, Sweden
- May 2011 *Properties and Spatial Distribution of Dust Emission in the Crab Nebula*  
 American Astronomical Society Meeting #218, Boston, MA
- Jul 2010 Multi-wavelength Observations of the Interactions Between PWNe and SNRs  
 Talk at the 38th COSPAR Scientific Assembly, Bremen, Germany
- Apr 2010 Multi-wavelength Observations of Composite Remnants  
 ICREA Workshop on The High-Energy Emission from Pulsars and their Systems, Spain
- Jan 2010 *Multi-wavelength Observations of Pulsar Wind Nebulae and Composite SNRs*  
 Dissertation talk at the AAS Meeting #215, Washington, DC
- Jul 2009 X-ray and Infrared Observations of the Crab-like Pulsar Wind Nebula G54.1+0.3  
 Talk at the SNRs and Pulsar Wind Nebulae in the Chandra Era meeting, Boston, MA
- Jun 2009 Infrared Observations of the Shell Surrounding the Pulsar Wind Nebula G54.1+0.3  
 International Workshop: Pulsars in their Diversity, Elba, Italy
- Mar 2009 *Evolution of PWNe and Composite SNRs: IR Spectroscopy of G54.1+0.3*  
 Talk at the Annual SAO Predoctoral Research Symposium, Cambridge, MA
- Jul 2008 Chandra and XMM Observations of the Composite Supernova Remnant G327.1-1.1  
 37th COSPAR Scientific Assembly, Montreal, Canada
- Mar 2008 *High-resolution X-ray Observations of the Composite SNR G327.1-1.1*  
 Talk at the Annual SAO Predoctoral Research Symposium, Cambridge, MA
- Mar 2008 *Chandra Observations of the Composite Supernova Remnant G327.1-1.1*  
 American Astronomical Society, #211, Austin, TX
- Jun 2006 *Spitzer Observations of Supernova Remnant N49 in the LMC*  
 American Astronomical Society Meeting Abstracts, #209, Seattle, WA
- May 2005 *Spitzer Space Telescope Observations of the Crab Nebula*  
 American Astronomical Society Meeting, #206, Minneapolis, MN

#### PRESS HIGHLIGHTS

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- 2023 The Crab Nebula Seen in New Light by NASA's Webb, NASA Press Release
- 2023 Webb Reveals Never-Before-Seen Details in Cassiopeia A, [NASA Press Release](#)
- 2022 Long ago and far away, Princeton Alumni Magazine, [Interview](#)
- 2022 7 big questions the James Webb Space Telescope is about to answer, [Interview](#)
- 2017 HST [Press Release](#): Observatories Combine to Crack Open the Crab Nebula
- 2014 Chandra [Press Release](#): MSH 11-62 and G327.1-1.1: Supernova Shock Waves, Neutron Stars, and Lobsters (Slane et al. 2013, Temim et al. 2015)
- 2010 NASA/Chandra [Press Release](#): Ashes to Ashes, Dust to Dust: Chandra & Spitzer Observations of SNR G54.1+0.3 (Temim et al. 2010)
- 2010 NASA/Chandra [Press Release](#): Pushing the Envelope: Chandra Observation of SNR G327.1-1.1 (Temim et al. 2009)
- 2006 NASA [Press Release](#): Spitzer sees a "smoke-free" Crab (Temim et al. 2006)

## PUBLICATIONS IN REFEREED JOURNALS

## Submitted:

- 53. Ejecta, Rings, and Dust in SN 1987A with JWST MIRI/MRS Jones, O.C., et al, including **Temim, T.**, 2023, submitted to ApJ, [arXiv:2307.06692](#)
- 52. A JWST/MIRI and NIRCам Analysis of the Young Stellar Object Population in the Spitzer I region of NGC 6822 Lenkić, L., et al, including **Temim, T.**, 2023, submitted to ApJ, [arXiv:2307.15704](#)
- 51. Ground-based and JWST Observations of SN 2022pul: I. Unusual Signatures of Carbon, Oxygen, and Circumstellar Interaction in a Peculiar Type Ia Supernova Siebert, M., et al, including **Temim, T.**, 2023, submitted to ApJ, [arXiv:2308.12449](#)
- 50. Ground-based and JWST Observations of SN 2022pul: II. Evidence from Nebular Spectroscopy for a Violent Merger in a Peculiar Type-Ia Supernova Kwok, L., et al, including **Temim, T.**, 2023, submitted to ApJ, [arXiv:2308.12450](#)
- 49. JWST MIRI and NIRCам Unveil Previously Unseen Infrared Stellar Populations in NGC 6822 Nally, C., et al, including **Temim, T.**, 2023, submitted, [arXiv:2309.13521](#)

## Accepted:

- 48. The Compact Object in SN 1987A Fransson, C, et al, 2023, accepted by Science
- 47. JWST NIRCам Observations of SN 1987A: Spitzer Comparison and Spectral Decomposition Arendt, R., et al, including **Temim, T.**, 2023, accepted by ApJ [arXiv:2309.13011](#)
- 46. Serendipitous detection of the dusty Type IIL SN 1980K with JWST/MIRI Zsíros, S., et al., including **Temim, T.**, 2023 [arXiv:2310.03448](#)

## Published:

- 45. JWST NIRSpec observations of Supernova 1987A – from the inner ejecta to the reverse shock Larsson, J., et al, including **Temim, T.**, 2023, *ApJ*, **949**, 2
- 44. The James Webb Space Telescope Mission Gardner, J., et al, including **Temim, T.**, 2023, Special Issue on JWST *PASP*, **135**, 1048
- 43. JWST Discovery of Dust Reservoirs in Nearby Type IIP Supernovae 2004et and 2017eaw Shahbandeh, M., Sarangi, A., **Temim, T.**, and 36 co-authors, 2023, *MNRAS*, **523**, 4
- 42. Observations of the Planetary Nebula SMP LMC 058 with the JWST MIRI MRS Jones, O., et al., including **Temim, T.**, 2023, *MNRAS*, **523**, 2
- 41. Hard X-Ray Observation and Multiwavelength Study of the PeVatron Candidate Pulsar Wind Nebula Dragonfly Woo, J., et al, including **Temim, T.** 2023, *ApJ* **954**, 1
- 40. The Mid-infrared Instrument for JWST and Its In-flight Performance Wright, G. S., et al., including **Temim, T.** 2023, *PASP*, **135**, 048003
- 39. How dark the sky: the JWST backgrounds Rigby, J. R., et al., including **Temim, T.** , 2023 *PASP*, **135**, 048002
- 38. The Science Performance of JWST as Characterized in Commissioning Rigby, J., et al., including **Temim, T.** 2023, *PASP*, **135**, 048001
- 37. A JWST Near- and Mid-Infrared Nebular Spectrum of the Type Ia Supernova 2021aefx Kwok, L. A., Jha, S., W., **Temim, T.**, et al. 2022, *ApJL*, **944**, 1

36. Nuclear High-Ionization Outflow in the Compton-Thick AGN NGC 6552 as seen with *JWST* Mid-Infrared Spectroscopy  
Álvarez-Márquez, J. et al., including **Temim, T.**, 2022 [A&A](#)
35. MeV-GeV Gamma-Ray Emission from SNR G327.1-1.1 Discovered by the Fermi-LAT  
Eagle, J., Castro, D., **Temim, T.**, et al., 2022 [ApJ, 940, 143](#)
34. SNR G292.0+1.8: A Remnant of a Low-mass Progenitor Stripped-envelope Supernova  
**Temim, T.**, Slane, P., Raymond, J. C., Patnaude, et al., 2022, [ApJ, 932, 1](#)
33. The Eel PWN: A PeVatron-candidate Origin for HAWC J1826-128 and HESS J1826-130  
Burgess, D., et al., including **Temim, T.**, 2022, [ApJ, 930, 2](#)
32. Element Abundances in the Unshocked Ejecta of Cassiopeia A  
Laming, J. M. & **Temim, T.**, 2020ApJ, 2020, [ApJ, 904, 115L](#)
31. The Nonstandard Properties of a Standard PWN: Unveiling the Mysteries of PWN G21.5-0.9 Using Its IR and X-Ray Emission  
Hattori, S.; Zhang, E.; Straal, S. M.; **Temim, T.**; Gelfand, J.; Slane, P., 2020, [ApJ, 904, 32H](#)
30. Turbulent Model of Crab Nebula Radiation  
Luo, Yonggang; Lyutikov, Maxim; **Temim, T.**; Comisso, Luca, 2020, [ApJ, 896, 147](#)
29. Interpreting Crab Nebula's Synchrotron Spectrum: Two Acceleration Mechanisms  
Lyutikov, M., **Temim, T.**; Komissarov, S., Slane, P., Sironi, L., Comisso, L., 2019, [MNRAS, 2051](#)
28. Probing the Innermost Ejecta Layers in Supernova Remnant Kes 75: Implications for the Supernova Progenitor  
**Temim, T.**, Slane, P., Sukhbold, T., Koo, B.-C., Raymond, J. C., Gelfand, J. D., 2019, [ApJL, 878L, 19](#)
27. Investigating the Structure of Vela X  
Slane, P., Lovchinsky, I., Kolb, C., Snowden, S. L., **Temim, T.**, et al., Blondin, J., 2018, [ApJ, 865, 86](#)
26. ALMA observations of supernova remnant N49 in the LMC: I. Discovery of CO clumps associated with X-ray and radio continuum shells  
Yamane, Y., et al., including **Temim, T.**, 2018, [ApJ, 863, 1](#)
25. A Deep X-ray View of the Synchrotron-Dominated Supernova Remnant G330.2+1.0  
Williams, B. J., Hewitt, J. W., Petre, R., **Temim, T.**, 2018, [ApJ, 855, 118](#)
24. Proper Motion of the High-Velocity Pulsar in SNR MSH 15-56  
**Temim, T.**, Slane, P., Plucinsky, P., Gelfand, J., Castro, D., and Kolb. C., 2017, [ApJ, 851, 128](#)
23. Comparing Neutron Star Kicks to Supernova Remnant Asymmetries  
Holland-Ashford, T., Lopez, L. A., Auchettl, K., **Temim, T.**, Ramirez-Ruiz, E., 2017, [ApJ, 844, 84](#)
22. Evolution of a Pulsar Wind Nebula within a Composite Supernova Remnant  
Kolb, C.; Blondin, J.; Slane, P.; **Temim, T.**, 2017 [ApJ, 844, 1](#)
21. A Massive Shell of Supernova-formed Dust in SNR G54.1+0.3  
**Temim, T.**, Dwek, E., Arendt, R. G., Borkowski, K., Reynolds, S. P., Slane, P., Gelfand, J., Raymond, J. C., 2017, [ApJ, 836, 129](#)
20. Deep Chandra Observations of the Pulsar Wind Nebula Created by PSR B0355+54  
Klingler, N., et al., including **Temim, T.**, 2016, [ApJ, 833, 253](#)

19. Radio Polarization Observations of the Snail: A Crushed Pulsar Wind Nebula in G327.1-1.1 with a Highly Ordered Magnetic Field  
Ma, Y. K., Ng, C.-Y., Bucciantini, N., Slane, P. O., Gaensler, B. M., **Temim, T.**, 2016  
[ApJ, 820, 100](#)
18. Late-time Evolution of Composite Supernova Remnants: Deep Chandra Observations and Hydrodynamical Modeling of a Crushed Pulsar Wind Nebula in SNR G327.1-1.1  
**Temim, T.**, Slane, P., Kolb, C., Blondin, J., Hughes, J. P., Bucciantini, N., 2015,  
[ApJ, 808, 100](#)
17. The Properties of the Progenitor Supernova, Pulsar Wind, and Neutron Star inside PWN G54.1+0.3  
Gelfand, J. D., Slane, P., **Temim, T.**, 2015, [ApJ, 807, 30](#)
16. Dust Destruction Rates and Lifetimes in the Magellanic Clouds  
**Temim, T.**, Dwek, E., Tchernyshyov, K., Boyer, M. L., Meixner, M., Gall, C., Roman-Duval, J., 2015, [ApJ, 799, 158](#)
15. X-ray Analysis of the Proper Motion and Pulsar Wind Nebula for PSR J1741-2054  
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