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EDUCATIONAL BACKGROUND**Doctor in Physics (Honors)**

Universidad Simón Bolívar, Caracas, Venezuela (2011)
 Advisor: Patrick Slane, Center for Astrophysics | Harvard & Smithsonian

Master in Physics (Honors) in Astrophysics

University of Edinburgh, Edinburgh, United Kingdom (2002)

EXPERIENCE, HONORS & AWARDS

Deputy Chair High Energy Astrophysics Division		Center for Astrophysics Harvard & Smithsonian (2023-date)
Astrophysicist Chandra X-ray Center		Center for Astrophysics Harvard & Smithsonian (2017-date)
Adjunct Professor of Physics		Clemson University (2019-date)
NASA Postdoctoral Program Fellow		NASA Goddard Space Flight Center (2016-2017)
Research Assistant Professor		George Mason University (2016)
Visiting Scientist		NASA Goddard Space Flight Center (2015-2016)
MKI - Chandra HETG Postdoctoral Research Scholar		MIT-Kavli (2011-2015)
Smithsonian Postdoctoral Associate		Center for Astrophysics Harvard & Smithsonian (2011)
Smithsonian Predoctoral Fellow		Center for Astrophysics Harvard & Smithsonian (2008-2011)
Graduate Student Fellow		Academy of Physical, Mathematical and Natural Sciences of Venezuela (2008-2011)
Physics Department Fellow		Universidad Simón Bolívar, Vzla (2003-2008)
Galileo Scholar		Fundación Gran Mariscal de Ayacucho, Vzla (1994-1996)

GRANTS AND OBSERVING PROGRAMS

Co-I – <i>Fermi-LAT</i> Guest Investigator Program (Cycle 15, PI: J. Eagle) <i>“Characterizing Gamma-Ray Emission from Pulsar Wind Nebulae with the Fermi-LAT”</i>	2022
PI – <i>Chandra</i> Guest Observer Program (Cycle 22) <i>“Measuring the Proper Motion and Flux Time Variability of the X-Ray Synchrotron Filaments in the NW of RCW 86”</i>	2020
Co-I – <i>Chandra</i> Guest Observer Program (Cycle 22, PI: S. Marchesi) <i>“A Spatially Resolved X-Ray Analysis of an Extreme Candidate Pulsar Wind Nebula”</i>	2020
Co-I – <i>NuSTAR</i> Guest Observer Program (Cycle 6, PI: J. Eagle) <i>“2FHL J1745.1-3035: A New Efficient Galactic Accelerator”</i>	2020
Co-I – <i>ATNF – PARKES</i> (2020OCT, PI: M. Kerr) <i>“Vela in the LMC: A Search for the Pulsar in SNR B0453”</i>	2020
Co-I – <i>Chandra</i> Guest Observer Program (Cycle 21, PI: F. Schinzel) <i>“The X-ray Tail of PSR J0002+6216”</i>	2019
PI – <i>Chandra</i> Guest Observer Program (Cycle 20) <i>“HESS J1731-347: A Synchrotron X-Ray Dominated Supernova Remnant”</i>	2018
Co-I – <i>Chandra</i> Guest Observer Program (Cycle 20, PI: P. Plucinsky) <i>“A Legacy Observation of N132D, the Most Luminous SNR in the Local Group”</i>	2018
PI – <i>Fermi</i> Guest Investigator Program (Cycle 10) <i>“Characterizing the γ-ray Emission from Pulsar Wind Nebulae with the Fermi-LAT”</i>	2018
Co-I – <i>Fermi</i> Guest Investigator Program (Cycle 11, PI: J. Eagle) <i>“Characterizing a Shock-Cloud Interaction on the Western Edge of the Vela Supernova Remnant”</i>	2018
Co-I – <i>Chandra</i> Guest Observer Program (Cycle 20, PI: P. Slane) <i>“A Remnant Hits the Wall: The Structure of G349.7+0.2”</i>	2018
PI – <i>NuSTAR</i> Guest Observer Program (Cycle 3) <i>“A Hard (X-ray) Look at the SW Region of SNR RCW 86 ”</i>	2017

Co-I – NASA Astrophysics Research and Analysis (PI: E. Figueroa-Feliciano) <i>“Observing Supernova Remnants with Micro-X”</i>	2017
Co-I – <i>NuSTAR</i> Guest Observer Program (Cycle 3, PI: H. Yamaguchi) <i>“Revealing the Origin of the Thermal and Nonthermal Emission from the Supernova Remnant W49B”</i>	2017
Co-I – <i>NuSTAR</i> Guest Observer Program (Cycle 2, PI: T. Temim) <i>“Spectral Evolution of Crushed Pulsar Wind Nebulae”</i>	2016
Co-I – <i>National Science Foundation</i> – Astronomy and Astrophysics Research Grant (PI: L. Lopez) <i>“Probing the Explosive Origins, Evolution, and Interactions of Supernova Remnants”</i>	2015
Co-I – <i>Magellan</i> Telescope, (PI: S. Trowbridge-Heine) <i>“Searching for Balmer-Dominated Shocks in the Supernova Remnant G296.1-0.5”</i>	2015
Co-I – <i>Chandra</i> Guest Observer Program (Cycle 16, PI: H. Yamaguchi) <i>“(Re-)Constraining the Cosmic-Ray Acceleration Efficiency and Magnetic Field Strength in the Northeast Rims of RCW 86”</i>	2014
Co-I – <i>Chandra</i> Guest Observer Program (Cycle 16, PI: P. Slane) <i>“Changes In Latitude: A Chandra Study of G296.5+10.0”</i>	2014
Co-I – <i>XMM-Newton</i> Guest Observer Program (Cycle 13, PI: L. Lopez) <i>“Mapping the Overionized Plasma of W49B with XMM-Newton”</i>	2013
Co-I – <i>XMM-Newton</i> Guest Observer Program (Cycle 13, PI: K. Auchettl) <i>“X-ray study of mixed morphology SNR HB9”</i>	2013
PI – <i>Chandra</i> Guest Observer Program (Cycle 14) <i>“Studying Particle Acceleration and Ejecta in the NW Rim of the SNR RCW 86”</i>	2012
Co-I – <i>Chandra</i> Guest Observer Program (Cycle 14, PI: P. Slane) <i>“A Detailed Study of the Composite Supernova Remnant MSH 11-62”</i>	2012
Co-I – NASA Astrophysics Research and Analysis (PI: E. Figueroa-Feliciano) <i>“Observing Supernova Remnants With Micro-X”</i>	2012
Co-I – <i>XMM-Newton</i> Guest Observer Program (Cycle 11, PI: J. Gelfand) <i>“What is accelerating particles in SNR G5.7-0.1?”</i>	2012

PI (Science) – <i>Magellan</i> Telescopes (Observing Time 1 night) “ <i>The Collapse of a Massive Star: Observing SNR G296.1-0.5 with Magellan</i> ”	2011
Co-I – <i>Fermi</i> Guest Observer Program (Cycle 04, PI: P. Slane) “ <i>Fermi Constraints on Particle Spectra in Pulsar Wind Nebulae</i> ”	2011
PI – <i>Fermi</i> Guest Observer Program (Cycle 03) “ <i>Fermi LAT Observations of Supernova Remnants Interacting with Molecular Clouds</i> ”	2010
Co-I – <i>Fermi</i> Guest Observer Program (Cycle 03, PI: D. J. Patnaude) “ <i>The Origin of the Very High Energy Emission in Cassiopeia A</i> ”	2010
Co-I – <i>Chandra</i> Science Program (Cycle 12, PI: P. Slane) “ <i>Clumpy Winds and a Bursting X-ray Source: A Chandra Study of G296.1-0.5</i> ”	2010
Co-I – <i>Suzaku</i> Guest Observer Program (Cycle 05, PI: J. D. Gelfand) “ <i>The Origin of the Hard X-ray and GeV Emission of SNR G304.6+0.1</i> ”	2009
PI – <i>RXTE</i> Guest Observer Program – (Cycle 14) “ <i>A Possible New Anomalous X-ray Pulsar Near the Supernova Remnant G296.1-0.5</i> ”	2009
Co-I – <i>Fermi</i> Guest Observer Program (Cycle 02, PI: P. Slane) “ <i>A Fermi Study of Particle Acceleration in G347.3-0.5</i> ”	2009

MENTORING EXPERIENCE

Center for Astrophysics Harvard & Smithsonian (2017-date)

- PhD Thesis Advisor – Jordan Eagle (Clemson University, 2020-2022)
- Predoctoral Research Review Committee Chair – Taylor Jacovich (CfA, 2019-2021)
- Maria Mitchell Observatory REU Science Advisor for Roel Olvera II (Texas Lutheran University, 2019)
- Senior Thesis Advisor for Annie Blackwell (College of William & Mary, 2018-2019)
- Maria Mitchell Observatory REU Science Advisor for Annie Blackwell (College of William & Mary, 2018)
- Master Thesis Advisor for Jorge Padial Doble (Fisk-Vanderbilt Bridge Program, 2018-2019)
- Summer Internship Supervisor for Alice Tincrès (ENSTA ParisTech, 2018)

Massachusetts Institute of Technology (2011-2015)

- Predoctoral Research Review Committee member – Katie Auchettl (CfA, 2013-2015)
- PhD Thesis Co-Advisor for Sarah Trowbridge-Heine (MIT, 2014)
- Research Science Institute Project Advisor for Robert Jones (MLW Governor School, 2013)
- Master Thesis Co-Advisor for Sarah Pearson (University of Copenhagen, 2013)
- Senior Thesis Advisor for Timothy Joubert (MIT, 2013-2014)
- MIT Bridge Program Research Advisor Antonio Hernandez (MIT, 2012)

HONORS AND AWARDS

- NASA Group Achievement Medal, as part of the Chandra 20th Anniversary Communications Team **2021**
- NASA Group Achievement Medal, as part of the Chandra ORViewer Software Development and Test Team **2019**
- NASA Postdoctoral Program Fellowship, NASA Goddard Space Flight Center **2016-2017**
- National Research Council Associate Fellowship, Naval Research Laboratory (declined) **2015**
- MKI-HETG Postdoctoral Research Associateship, MIT-Kavli **2008-2011**
- Smithsonian Predoctoral Fellowship, Center for Astrophysics | Harvard & Smithsonian **2021**
- Fellowship of the Academy of Physical, Math. and Nat. Sciences, Venezuela **2008-2011**
- Physics Department Fellowship, Universidad Simón Bolívar, Venezuela **2003-2008**
- Galileo Scholarship Award, Fundación Gran Mariscal de Ayacucho, Venezuela **1994-1996**

ADVISORY COMMITTEE MEMBERSHIP

- *Chair* of the CXC “25th Anniversary of Chandra’s Launch” Events Committee **2023-date**
- *Representative* of the Fermi-LAT Collaboration at the *Multi-Messenger Diversity Network* **2021-date**
- *Member* of the CfA *APS Inclusion, Diversity, and Equity Alliance* Coordination Committee **2020-2023**
- *Member* of the *Fermi-LAT Collaboration Diversity, Equity and Inclusion* Steering Committee **2020-date**

- *Member of the Science Team* for the All-Sky Medium Energy Gamma-ray Observatory (AMEGO) design and development collaboration **2016-date**
- *Member of the Lynx X-ray Observatory – Physics of Plasmas and Stellar Cycles Science Working Groups* **2016-date**
- *NASA Endorsed Member of the Athena Study Science Team (ASST) Working Groups (WGs)* **2015-date**
- *Member of the PhD Thesis Committee Jordan Eagle (Clemson University)* **2019-2022**
- *Member of the CfA Predoctoral Research Review Committee (PRRC) for Jordan Eagle (Clemson University)* **2019-2022**
- *Chair of the CfA Predoctoral Research Review Committee (PRRC) for Taylor Jacovich (George Washington University)* **2019-2021**
- *Coordinator of the Equity & Inclusion Journal Club at the CfA* **2019-2020**
- *Galactic Science Coordinator for the Fermi-LAT Collaboration* **2018-2020**
- *Member of the Senior Thesis Committee Annie Blackwell (College of William & Mary)* **2019**
- *Member of the Master Thesis Committee Jorge Padial (Fisk/Vanderbilt Bridge Program)* **2019**
- *Chair of the 2019 APS “Cecilia Payne-Gaposchkin Doctoral Dissertation Award in Astrophysics” Selection Committee* **2019**
- *Member of the CXC “20th Anniversary of Chandra’s Launch” Events Committee* **2018-2019**

REVIEWER ACTIVITIES

Academic & professional promotion reviews:

- Reviewed 1 promotion package from Associate Professor to Full Professor for the *Department of Astronomy of George Washington University*
- Reviewed Fellowship Applications to the *NASA Postdoctoral Program*

Editorial work for professional journals and/or conference proceedings:

- Reviewed 10 manuscripts for the *Astrophysical Journal*
- Reviewed 3 manuscripts for the *Monthly Notices of the Royal Astronomical Society*
- Reviewed 1 manuscript for *Science*

Reviews of research proposals:

- Panelist at the *National Science Foundation – Astronomy and Astrophysics Research Grants Peer Review 2017*

- Panelist at the *Fermi Guest Investigator Program* Peer Review – 4 Cycles
- Panel Chair at the *NuSTAR Guest Observer Program* Peer Review – Cycle 7
- Panel Chair at the *Fermi Guest Investigator Program* Peer Review – Cycle 13
- Panel Organizer at the *Chandra Guest Observer Program* Peer Review – Cycles 20, 21, and 22
- Technical Reviewer for the CXC Science Operations Mission Planning Team in the *Chandra Guest Observer Program* Peer Review – Cycles 19, 20, 21, 22, 23, 24, and 25

Pre-publication reviews of the work of other researchers:

- *Internal reviewer* (requested review as a member of the Fermi-LAT Collaboration): 2 manuscripts
- *Internal reviewer* (as Galactic Science Coordinator for the Fermi-LAT Collaboration): 48 manuscripts

MEETINGS/SCIENTIFIC CONFERENCES ORGANIZATION

- Coordinator of the *Chandra 25th Anniversary Special Invited Session* at the 2024 American Astronomical Society Winter Meeting - New Orleans, LA (2024)
- Member of the Scientific Organizing Committee of the conference *Latin American Conference on Astrophysics and Relativity* (2023)
- Convener of the "Supernova Remnants" discussion session (session 46) at the *ICRC* (2021)
- Main Scientific Organizer for the "The remnants of supernova explosions" session E1.2 at the *2020 COSPAR General Assembly* (2021).
- Organizer for the Galactic Science session at the *Fermi-LAT Collaboration Meetings* in October 2018, March 2019, September 2019, March 2020 and September 2020
- Coordinator and Chair of the *Chandra 20th Anniversary Special Invited Session* at the 2019 American Physical Society April Meeting (Denver, CO)

EDUCATIONAL & PUBLIC OUTREACH ACTIVITIES

- Collaborated with playwright Melinda López and Central Square Theater in the development of the play "Young Nerds of Color" – 2018–2022
- Gave a public talk at Churchill College High School in Mexico City, Mexico, "Introduction to X-ray Astrophysics and Astrophysicists" – 2021
- Led an Astronomy Virtual Hangouts/webinars (Astro Chat) with *YouthAstroNet* – organized by the CfA's Science Education Division – 2020
- Gave a public talk at Astronomy on Tap – Seattle, "20 Years of Science with Chandra" – 2019

- Coordinated the Chandra20 Astronomy on Tap event series (20 events, worldwide) – 2019
- Participated in the documentary “First Light: Celebrating 20 Years of Chandra Observatory” from Steer Films, NASA, CXC, and SAO – 2019
- Acted as advisor for the Resume Review Workshop for the SAO Latino Initiative program interns – 2018-2019
- Presented an invited talk at the Boston Red Sox NASA STEM Day at Fenway Stadium – 2018
- Acted as facilitator at Chandra booth during the Boston Red Sox NASA STEM Day at Fenway Stadium – 2018
- Acted as STEM mentor for the SAO Latino Initiative program intern Alexander McLeod (University of Massachusetts, Lowell) – 2018
- Led English to Spanish translation effort for NASA's "Women in STEM" campaign – 2018
- Led "Ask an expert" session on Mission Planning and Chandra Proposals at the AAS HEAD Meeting – 2017
- Volunteered at the CfA – Cambridge Explores the Universe event, part of the Cambridge Science Festival – 2017 .

INVITED TALKS AND LECTURES

- Colloquium of the Astrophysics Science Division at NASA Goddard Space Flight Center, 2021. Title: “*Particle Acceleration in the Remnants of Supernova Explosions*”
- Review Talk in the COSPAR 43rd General Assembly Event E1.15 Cherenkov Telescope Array: the Ground-based Eyes to Observe the Gamma-ray Universe (2021). Title: “*X-ray Studies in the Era of CTA*”
- Special Seminar at the Arcetri Observatory in Florence, Italy in 2019. Title: “*Synchrotron Filaments and Magnetic Field Amplification*”
- High Energy Astrophysics Phenomena Seminar at the CfA in 2018. Title: “*The Monster Next Door: Fermi-LAT Observations of SNR N132D in the LMC*”
- Seminar at the Center for Cosmology and Astroparticle Physics at Ohio State University, 2018. Title: “*Particle Acceleration in the Remnants of Supernova Explosions*”
- Summer Colloquium at the CfA in 2017. Title: “*Particle Acceleration in the Remnants of Supernova Explosions*”
- Physics Department Colloquium at Clemson University 2017. Title: “*Particle Acceleration in the Remnants of Supernova Explosions*”

REFEREED ARTICLES

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43. "First flight performance of the Micro-X microcalorimeter X-ray sounding rocket" Micro-X Collaboration, 2023, *Journal of Astronomical Telescopes, Instruments, and Systems*, 9, 034001
42. "Resolving the Bow Shock and Tail of the Cannonball Pulsar PSR J0002+6216" Kumar, Schinzel, Taylor, Kerr, **Castro**, Rau, and Bhatnagar, 2023, *The Astrophysical Journal*, 945, 129
41. "Fermi-LAT Gamma-Ray Emission Discovered from the Composite Supernova Remnant B0453-685 in the Large Magellanic Cloud" Eagle, **Castro**, Mahhov, Gelfand, Kerr, Slane, Ballet, Acero, Straal, and Ajello, 2023, *The Astrophysical Journal*, 945, 4
40. "MeV-GeV Gamma-Ray Emission from SNR G327.1-1.1 Discovered by the Fermi-LAT" Eagle, **Castro**, Temim, Ballet, Slane, Gelfand, Kerr, and Ajello, 2022, *The Astrophysical Journal*, 940, 143
39. "Search for New Cosmic-Ray Acceleration Sites within the 4FGL Catalog Galactic Plane Sources" Abdollahi, Acero, Ackermann, Baldini, Ballet, Barbiellini, Bastieri, Bellazzini, Berenji, Berretta, Bissaldi, Blandford, Bonino, Bruel, Buson, Cameron, Caputo, Caraveo, **Castro**, et al., 2022, *The Astrophysical Journal*, 933, 204
38. "Incremental Fermi Large Area Telescope Fourth Source Catalog" Abdollahi, Acero, Baldini, Ballet, Bastieri, Bellazzini, Berenji, Berretta, Bissaldi, Blandford, Bloom, Bonino, Brill, Britto, Bruel, Burnett, Buson, Cameron, Caputo, Caraveo, **Castro**, et al., 2022, *The Astrophysical Journal Supplement Series*, 260, 53
37. "The Forward and Reverse Shock Dynamics of Cassiopeia A" Vink, Patnaude, and **Castro**, 2022, *The Astrophysical Journal*, 929, 57
36. "Gamma-Ray Emission Revealed at the Western Edge of SNR G344.7-0.1" Eagle, Marchesi, **Castro**, Ajello, and Venderasco, 2020, *The Astrophysical Journal*, 904, 123
35. "High-energy gamma-ray study of the dynamically young SNR G150.3+4.5" Devin, Lemoine-Goumard, Grondin, **Castro**, Ballet, Cohen, and Hewitt, 2020, *Astronomy and Astrophysics*, 643, A28
34. "Evidence of Particle Acceleration in the Superbubble 30 Doradus C with NuSTAR" Lopez, Grefenstette, Auchettl, Madsen, and **Castro**, 2020, *The Astrophysical Journal*, 893, 144

33. "Fermi Large Area Telescope Fourth Source Catalog" Abdollahi, Acero, Ackermann, Ajello, Atwood, Axelsson, Baldini, Ballet, Barbiellini, Bastieri, Becerra Gonzalez, Bellazzini, Berretta, Bissaldi, Blandford, Bloom, Bonino, Bottacini, Brandt, Bregeon, Bruel, Buehler, Burnett, Buson, Cameron, Caputo, Caraveo, Casandjian, **Castro**, et al., 2020, The Astrophysical Journal Supplement Series, 247, 33
32. "Micro-X Sounding Rocket: Transitioning from First Flight to a Dark Matter Configuration" Adams, Anderson, Baker, Bandler, Bastidon, **Castro**, Danowski, Doriese, Eckart, Figueroa-Feliciano, Gold nger, Heine, Hilton, Hubbard, Kelley, Kilbourne, Manzagol-Harwood, McCammon, Okajima, Porter, Reintsema, Serlemitsos, Smith, and Wikus, 2020, Journal of Low Temperature Physics, 199, 1072
31. "MAGIC and Fermi-LAT gamma-ray results on unassociated HAWC sources" MAGIC Collaboration, HAWC Collaboration, and Fermi-Lat Collaboration, 2019, Monthly Notices of the Royal Astronomical Society, 485, 356
30. "2FHL J0826.1-4500: Discovery of a Possible Shock-Cloud Interaction on the Western Edge of the Vela Supernova Remnant" Eagle, Marchesi, **Castro**, Ajello, Duvidovich, and Tibaldo, 2019, The Astrophysical Journal, 870, 35
29. "Evidence for Rapid Adiabatic Cooling as an Origin of the Recombining Plasma in the Supernova Remnant W49B Revealed by NuSTAR Observations" Yamaguchi, Tanaka, Wik, Rho, Bamba, **Castro**, Smith, Foster, Uchida, Petre, and Williams, 2018, The Astrophysical Journal, 868, L35
28. "NuSTAR Detection of Nonthermal Bremsstrahlung from the Supernova Remnant W49B" Tanaka, Yamaguchi, Wik, Aharonian, Bamba, **Castro**, Foster, Petre, Rho, Smith, Uchida, Uchiyama, and Williams, 2018, The Astrophysical Journal, 866, L26
27. "VERITAS and Fermi-LAT Observations of TeV Gamma-Ray Sources Discovered by HAWC in the 2HWC Catalog" VERITAS Collaboration, Fermi-LAT Collaboration, and HAWC Collaboration, 2018, The Astrophysical Journal, 866, 24
26. "The Search for Spatial Extension in High-latitude Sources Detected by the Fermi Large Area Telescope" Ackermann, Ajello, Baldini, Ballet, Barbiellini, Bastieri, Bellazzini, Bissaldi, Blandford, Bloom, Bonino, Bottacini, Brandt, Bregeon, Bruel, Buehler, Cameron, Caputo, Caraveo, **Castro**, et al., 2018, The Astrophysical Journal Supplement Series, 237, 32
25. "Proper Motion of the High-velocity Pulsar in SNR MSH 15-56" Temim, Slane, Plucinsky, Gelfand, **Castro**, and Kolb, 2017, The Astrophysical Journal, 851, 128
24. "Search for Extended Sources in the Galactic Plane Using Six Years of Fermi-Large Area Telescope Pass 8 Data above 10 GeV" Ackermann, Ajello, Baldini, Ballet, Barbiellini, Bastieri, Bellazzini, Bissaldi, Bloom, Bonino, Bottacini, Brandt, Bregeon, Bruel, Buehler, Cameron, Caragiulo, Caraveo, **Castro**, et al., 2017, The Astrophysical Journal, 843, 139

23. "Cosmic-ray electron-positron spectrum from 7 GeV to 2 TeV with the Fermi Large Area Telescope" Abdollahi, Ackermann, Ajello, Atwood, Baldini, Barbiellini, Bastieri, Bellazzini, Bloom, Bonino, Brandt, Bregeon, Bruel, Buehler, Cameron, Caputo, Caragiulo, **Castro**, et al., Zimmer, and Fermi-LAT Collaboration, 2017, Physical Review D, 95, 082007
22. "The Renamed Shock Velocity of the X-Ray Filaments in the RCW 86 Northeast Rim" Yamaguchi, Katsuda, **Castro**, Williams, Lopez, Slane, Smith, and Petre, 2016, The Astrophysical Journal, 820, L3
21. "Fermi-LAT Observations of Supernova Remnant G5.7-0.1, Believed to be Interacting with Molecular Clouds" Joubert, **Castro**, Slane, and Gelfand, 2016, The Astrophysical Journal, 816, 63
20. "Searching for keV Sterile Neutrino Dark Matter with X-Ray Microcalorimeter Sounding Rockets" Figueroa-Feliciano, Anderson, **Castro**, Goldinger, Rutherford, Eckart, Kelley, Kilbourne, McCammon, Morgan, Porter, Szymkowiak, and XQC Collaboration, 2015, The Astrophysical Journal, 814, 82-19. "Multi-wavelength Analysis of the Galactic Supernova Remnant MSH 11-61A" Auchettl, Slane, **Castro**, Foster, and Smith, 2015, The Astrophysical Journal, 810, 43
18. "Supernova Remnants Interacting with Molecular Clouds: X-Ray and Gamma-Ray Signatures" Slane, Bykov, Ellison, Dubner, and **Castro**, 2015, Space Science Reviews, 188, 187
17. "The Role of Stellar Feedback in the Dynamics of H II Regions" Lopez, Krumholz, Bolatto, Prochaska, Ramirez-Ruiz, and **Castro**, 2014, The Astrophysical Journal, 795, 121
16. "Identification of a Jet-driven Supernova Remnant in the Small Magellanic Cloud: Possible Evidence for the Enhancement of Bipolar Explosions at Low Metallicity" Lopez, **Castro**, Slane, Ramirez-Ruiz, and Badenes, 2014, The Astrophysical Journal, 788, 5
15. "Discriminating the Progenitor Type of Supernova Remnants with Iron K-shell Emission" Yamaguchi, Badenes, Petre, Nakano, **Castro**, Enoto, Hiraga, Hughes, Maeda, Nobukawa, Sa-Harb, Slane, Smith, and Uchida, 2014, The Astrophysical Journal, 785, L27
14. "Fermi-LAT Observations of Supernova Remnants Kesteven 79" Auchettl, Slane, and **Castro**, 2014, The Astrophysical Journal, 783, 32
13. "A CR-hydro-NEI Model of the Structure and Broadband Emission from Tycho's Supernova Remnant" Slane, Lee, Ellison, Patnaude, Hughes, Eriksen, **Castro**, and Nagataki, 2014, The Astrophysical Journal, 783, 33
12. "A Chandra View of Non-thermal Emission in the Northwestern Region of Supernova Remnant RCW 86: Particle Acceleration and Magnetic Fields" **Castro**, Lopez, Slane, Yamaguchi, Ramirez-Ruiz, and Figueroa-Feliciano, 2013, The Astrophysical Journal, 779, 49

11. "Unraveling the Origin of Overionized Plasma in the Galactic Supernova Remnant W49B" Lopez, Pearson, Ramirez-Ruiz, **Castro**, Yamaguchi, Slane, and Smith, 2013, *The Astrophysical Journal*, 777, 145
10. "Supernova Remnant Kes 17: An Efficient Cosmic Ray Accelerator inside a Molecular Cloud" Gelfand, **Castro**, Slane, Temim, Hughes, and Rakowski, 2013, *The Astrophysical Journal*, 777, 148
9. "Fermi-LAT Observations of Supernova Remnants Interacting with Molecular Clouds: W41, MSH 17-39, and G337.7-0.1" **Castro**, Slane, Carlton, and Figueroa-Feliciano, 2013, *The Astrophysical Journal*, 774, 36
8. "High-energy Emission from the Composite Supernova Remnant MSH 15-56" Temim, Slane, **Castro**, Plucinsky, Gelfand, and Dickel, 2013, *The Astrophysical Journal*, 768, 61
7. "The Galactic Supernova Remnant W49B Likely Originates from a Jet-driven, Core-collapse Explosion" Lopez, Ramirez-Ruiz, **Castro**, and Pearson, 2013, *The Astrophysical Journal*, 764, 50
6. "Fermi-LAT Observations and a Broadband Study of Supernova Remnant CTB 109" **Castro**, Slane, Ellison, and Patnaude, 2012, *The Astrophysical Journal*, 756, 88
5. "A Broadband Study of the Emission from the Composite Supernova Remnant MSH 11-62" Slane, Hughes, Temim, Rousseau, **Castro**, Foight, Gaensler, Funk, Lemoine-Goumard, Gelfand, Moffett, Dodson, and Bernstein, 2012, *The Astrophysical Journal*, 749, 131
4. "An XMM-Newton Study of the Bright, Nearby Supernova Remnant G296.1-0.5" **Castro**, Slane, Gaensler, Hughes, and Patnaude, 2011, *The Astrophysical Journal*, 734, 86
3. "The Impact of Efficient Particle Acceleration on the Evolution of Supernova Remnants in the Sedov-Taylor Phase" **Castro**, Slane, Patnaude, and Ellison, 2011, *The Astrophysical Journal*, 734, 85
2. "Fermi Detection of the Pulsar Wind Nebula HESS J1640-465" Slane, **Castro**, Funk, Uchiyama, Lemièrre, Gelfand, and Lemoine-Goumard, 2010, *The Astrophysical Journal*, 720, 266
1. "Fermi Large Area Telescope Observations of Supernova Remnants Interacting with Molecular Clouds" **Castro** and Slane, 2010, *The Astrophysical Journal*, 717, 372