# Christina Love, PhD

## **Education**

2006

2013 **Ph.D. Physics**, Temple University (TU), Philadelphia, PA

Thesis: "Design and Analysis for the DarkSide-10 Two-Phase Argon Time Projection Chamber" (Advisor: C.J. Martoff, DarkSide Collaboration)

2010 **M.A. Physics**, Temple University, Philadelphia, PA

Peter Havas Humanitarian Scholarship For Outstanding Physics Graduate Students

**B.S. Physics Education**, West Chester University, West Chester, PA

Cum Laude, Dean's List, The Robert M. Brown Endowed Scholarship for Physics, Sigma Pi Sigma, Michael F. Martens Award for Achievement in Physics

## **Current Appointments**

2014 – Department of Physics, Drexel University (DU), Philadelphia, PA

### Associate Teaching Professor (2020 –

- Developing and teaching all levels of introductory physics using evidence-based teaching methods.
- Specializing in relating physics content to different audiences, such as engineering, health sciences, architecture, and media arts.
- Teaching undergraduate physics majors in courses such as statistical mechanics, modern physics, seminar, and senior research.

## **Assistant Teaching Professor** (2014 – 2020)

- Designed eight new courses including introduction to experimental physics for physics majors, computational labs for media art majors, and a community-based learning course.
- Standardized the physics sequence for engineering to include in-class polling and pre-lecture assignments.
- Restructured the physics sequences for non STEM majors by working with multiple colleges, programs, and departments.
- Advised senior research theses and served on graduate student thesis committees.
- 2021 IceCube Collaboration, <a href="https://icecube.wisc.edu/collaboration/meet-the-collaboration/">https://icecube.wisc.edu/collaboration/meet-the-collaboration/</a>

#### Name that Neutrino Lead

- Developed and runs an IceCube Citizen Science Program that works to improve upon ongoing analyses and will be a source of significant outreach work.
- Co-directed and designed an IceCube outreach program where high school students were immersed in university-level projects.

## **Funding Received**

- 8. IceCube Data Analysis in the U.S. 2022-2025, NSF, 2022. \$541,879 over three years. Drexel PI:
- N. Kurahashi Neilson.
- 7. Preparing Mathematics and Science Teachers for Middle School, NSF, 2018. \$1,199,762 over five years. PI:
- S. Vaidya, Co-PIs: C. Love, D. McEachron, S. Moskow.
- 6. *Start Talking Science (STS)*. Children's Hospital of Philadelphia, 2016. ~\$7,700 in-kind contributions over seven years. Director: C. Love.
- 5. STS. CARES Grant, Penn Medicine, 2015. \$3,962 over three years. PI: M. Leary, Co-PI: C. Love.
- 4. STS. Academy of Natural Sciences, 2015. ~\$4,000 in-kind contributions in one year. Director: C. Love.
- 3. STS. Science History Institute, 2014. \$40,000 in-kind contributions over eight years. Director: C. Love.
- 2. STS. Department of Physics, DU, 2014. \$1,000 over two years. Director: C. Love.
- 1. STS. Department of Physics, Temple University, 2014. \$1,000 over two years. Director: C. Love.

## **Submitted Grant Proposals**

- 5. Using Public Engagement to Advance Astronomy at the South Pole, APS Innovation Fund, Submitted 2024.
- 4. *The Development of a Pre-REU Site for Investigating Physics Outreach Efficacy*, Integrative Activities in Physics, NSF. Co-PIs: C. Love, N. K Neilson, and E. Brewe. Submitted 2016.
- 3. Start Talking Science. COMPASS Outreach Grants, American Society for Cell Biology. PI: C. Kraft, Co-PI: C. Love. Submitted in 2015 and 2016.
- 2. *Mini IceCube Summer High School Program*. ExCITe Center Seed Proposal. Co-PIs: B. Prefontaine, N. K Neilson, C. Love, J. Silverman, and V. Klein. Submitted August 2016.
- 1. Full STEAM Ahead: The Locke Elementary Physics Garden Conservation of Energy... and Native Species. ExCITe Center Seed Proposal. Co-PIs: C. Love and M. Togna. Submitted June 2015.

## **Research Appointments**

## 2013 – 2014 Visiting Scientist and Postdoctoral Fellow

Oak Ridge Institute for Science and Education (ORISE)

Transportation Security Laboratory, Department of Homeland Security, Pomona, NJ

- Researched image quality and image reconstruction with X-ray tomography for bulk explosives detection.
- Secured funding for an undergraduate physics major at Rowan University.

2010 **Research Associate**, NASA's Goddard Space Flight Center, Greenbelt, MD

• Simulated the electrostatics of the X-ray detector for the GEMS mission.

2009 – 2013 **Research Assistant**, Physics Department, Temple University, Philadelphia, PA DarkSide Collaboration, Gran Sasso National Laboratory, Assergi, Italy

- Designed, simulated, and built high voltage systems and electric field configurations.
- Analyzed raw data and refined data cuts for DarkSide-10, a prototype detector.
- Created position reconstruction algorithms using PCA analysis, Monte Carlo simulations, and DarkSide-10 data.
- Searched for funding and assisted in writing and securing the NSF grant: "Green" Aqueous Liquid Scintillator for Nuclear Materials. PI: C. J. Martoff, \$377,067.
- Designed and proposed a vacuum ultraviolet detection experiment.

2009 **Research Associate**, Fermi National Accelerator Laboratory, Batavia, IL

• Engineered muon veto detectors and pursued an aqueous scintillation solution.

## **Leadership Appointments**

2013 – Founder and Director, Start Talking Science

- Annually organizing a public outreach event where STEM researchers present non-technical posters to area students and the general public.
- Secured funding for 10 years totaling over \$57,000.
- 2023 **Associate Director**, Undergraduate Research Support (ASURS) Fund College of Arts and Sciences, DU
  - Designing and running a program to engage undergraduate students in research.
- **2020 2021 Faculty Fellow**

Center for the Advancement of STEM Teaching and Learning Excellence (CASTLE), DU

• Engaged in cross-curricular discussions, reports, and projects.

2019 **Director**, Drexel Engineering Leadership Transformation Academy (DELTA)
College of Engineering, DU

• Coordinated a program for incoming freshmen from underrepresented groups in STEM.

#### 2015 – 2018 President-Elect, President, and Past-President

Association for Women in Science (AWIS), Philadelphia Chapter

• Planned programs and coordinated resources to provide networking, mentoring, and leadership opportunities for women in STEM at all levels.

C. Love CV, September 2024

## **Other Teaching Appointments**

- Adiunct Professor, College of Medicine, DU 2016 -
  - Developed and taught hybrid courses for post baccalaureate pre-med students.
- 2022 2024Adjunct Professor, Rider University, Lawrenceville, NJ
  - Created an online astronomy course with hands-on projects using household materials.
- 2012 2022Adjunct Professor, Rowan University, Glassboro, NJ
  - Created labs and taught astrophysics for physics majors.
- Adjunct Instructor, Burlington County College, Mount Laurel, NJ 2012
- 2007 2009**Teaching Assistant**, Physics Department, Temple University, Philadelphia, PA
- High School Teacher, Physics, Moorestown High School, Moorestown, NJ 2006 - 2007
  - Designed and taught based on inquiry and diverse learning styles.
- 2006 High School Student Teacher, Octorara Area High School, Atglen, PA

## **Awards and Honors**

2024	<b>Provost Award for</b>	Undergraduate	<b>Teaching Impact</b> , DU

- 2023 2024Teagle Fellow, Pennoni Honors College
- 2023 Travel Award, Office of Research & Innovation, DU
- 2020 Barbara G. Hornum Award for Teaching Excellence, DU
- 2018 Evidence Based Teaching Award in STEM Education, DU
- Teaching and Learning Conference Travel Award, DU 2017
- 2016-2018 AWIS Star Chapter Award, President of Philadelphia Chapter
- Outstanding Faculty Mentor, Graduate Student Association, DU 2015
- Sciences & Medicine Alumni Award, Foundation for Education, Somers Point, NJ 2015
- 2012 Division of Nuclear Physics Travel Award, APS, 2012 April Meeting
- 2009 **Award for Outstanding Teaching**, Graduate Award, Temple University
- Division of Nuclear Physics Travel Award, APS, 2009 April Meeting 2008

#### **Students Supervised**

2024 –	Maddie Lee	Name tha	at Neutrino	Senior	Research	Phy	vsics D	enartment i	DU

- Saif Haan, Name that Neutrino, Biology Department, DU 2024 -
- 2024 -Michael Vukovich, Name that Neutrino, College of Engineering, DU
- 2024 -Colin Shaw, Name that Neutrino, College of Engineering, DU
- 2023 -Gia Amin, Name that Neutrino, Souderton Area High School
- 2023 -Emily Taub, Name that Neutrino, MS Research, Physics Department, DU
- 2024 Alexandros Pratsos, Name that Neutrino Summer Research, University of Toronto
- Andrew Phillips, Name that Neutrino, Senior Research, Physics Department, DU 2023 - 2024
- 2021 2023Elizabeth Warrick, Name that Neutrino, MS Thesis Research, Physics Department, DU
- Selvi Selvaraja, STEM Connections, Community-Based Learning Research, DU 2019
- Nora Wurmbach, Start Talking Science 2018, Senior Project, DU 2019
- 2019 Julianne Davis, Start Talking Science 2018, University of Pennsylvania
- 2018 2019Sarah Coccia, IceCube Outreach, Senior Thesis, DU
- 2017 2018Rvan Crist, Start Talking Science 2017, Senior Thesis, DU
- Aaditya Patel, STEM Connections, Community-Based Learning Research, DU 2017 - 2018
- 2016 2017Vincent O'Leary, STEM Connections, Community-Based Learning Research, DU
- Brean Prefontane, IceCube Summer Program, Undergraduate Research, DU 2016 - 2017
- 2016 2017Nora Wurmbach, Particle Physics Teaching Toolkit, Undergraduate Research, DU
- 2014 2015Nicholas Sfiroudis, Particle Physics Teaching Toolkit, Senior Thesis, DU
- Joseph Iannello, ORISE Undergraduate Research, Rowan University 2013 - 2014

#### **Public Interviews**

- 5. KYW Newsradio, Philadelphia PA, 2024.
- 4. Good Day Philadelphia LIVE, FOX29, Philadelphia, PA, 2024.

https://www.fox29.com/video/1507220

3. Impact Factor Podcast LIVE, Philadelphia, PA, 2022.

https://podcasters.spotify.com/pod/show/katie-van-aken/episodes/Ep--23---Dumb-It-Up--LIVE-Panel-Discussion-e1s5jn6

2. The STEM Everyday Podcast, Philadelphia, PA and Grand Rapids, MI, 2015.

https://dailystem.com/2015/06/22/stem-everyday-26/

1. WHYY's *The Pulse*, Philadelphia, PA, 2014.

https://whyy.org/segments/the-art-of-explaining-science-and-why-its-so-hard-to-do/

### **Non-Technical Publications**

- 11. Christy Martin. "Crystal Clear." Chemical Heritage. Vol. 30. No. 1. 2012.
- 10. Christy Martin. "Full Boyle." Chemical Heritage. Vol. 30. No. 1. 2012
- 9. Christy Martin. "Mesmerized." Chemical Heritage. Vol. 29. No. 3. 2011/2012.
- 8. Christy Martin. "Bridging the Gaps." Chemical Heritage. Vol. 29. No. 3. 2011/2012.
- 7. Christy Martin et al. "Making the Process." Chemical Heritage. Vol. 29. No. 3. 2011/2012.
- 6. Christy Martin. "The Platonic Solids." *Chemical Heritage*. Vol. 29. No. 3. 2011/2012.
- 5. Christy Martin. "What Teaching Taught Me." Periodic Tabloid, CHF. 2011.
- 4. Christy Martin. "Current Research by Future Scientists." *Periodic Tabloid*, CHF. 2011.
- 3. Christy Martin. "The (Prehistoric) History of the Elements." Periodic Tabloid, CHF. 2011.
- 2. Christy Martin. "Revealing MRIs." Periodic Tabloid, CHF. 2011.
- 1. Christy Martin. "Dark Matters and the Periodic Table." Periodic Tabloid, CHF. 2011.

#### **Non-Technical Presentations**

- 14. "Citizen Science at the South Pole," C. Love and E. Warrick. Start Talking Science, Sept. 2022.
- 13. "Science Communication and More," C. Love. Senior Seminar, Dept. of Bio., DU. Oct. 2020/Nov. 2021.
- 12. "Panel Discussion on Audience Response Mechanisms," C. Love. CASTLE Pedagogical Happy Hour, DU. Oct. 2017.
- 11. "Development and Assessment of a Particle Physics Summer Program for High School Students," B.

Prefontaine et al. Start Talking Science, Chemical Heritage Foundation, Philadelphia, PA. Sept. 2017.

- 10. "Start Talking Science and STEM Connections" C. Love. CASTLE Pedagogical Happy Hour, DU. 2017.
- 9. "Dark Matter Matters," C. Love. IceCube Program for High School Students, DU. Aug. 2016.
- 8. "Dark Matter Matters," C. Love. Workshop for High School Students, DU. Sept. 2016.
- 7. "Join the DarkSide: Dark Matter Matters," C. Love. Science on Tap, Philadelphia, PA. Jun. 2015.
- 6. "Women In STEM Careers," C. Woods, M. Leary, C. Love. STEM Everyday Podcast. Jun. 2015.
- 5. "Join the DarkSide: Dark Matter Matters," C. Love. Nerd Nite, Philadelphia, PA. Dec. 2014.
- 4. "STEM Communication and AWIS," C. Love. English Language Center, DU. Nov. 2014.
- 3. "What is Dark Matter?" C. Love. Kaczmarczik Day 2014, Philadelphia, PA. Oct. 2014.
- 2. "What is Dark Matter and How Can We Detect it?" C. Love. Start Talking Science, Aug. 2014.
- 1. "Explosives Detection for Airport Baggage Scanners," C. Love et al. Start Talking Science, Aug. 2014.

## **Colloquia Hosted**

- 2024 Karen Masters, Haverford University
- 2020 Shannon Swilley Greco, Princeton Plasma Physics Laboratory
- 2020 David Flay, University of Massachusetts
- 2020 David Klassen, Rowan University
- 2018 John Tatarowicz, Battelle
- 2015 Georgia Papaefthymiou-Davis, Villanova University

# **Outreach and Service**

Community:				
2024	Invited Speaker, Conferences for Undergraduate Women in Physics (CUWiP),			
	University of Pennsylvania			
2020 - 2022	Member-at-Large, Executive Committee			
	Forum on Outreach and Engaging the Public (FOEP), American Physical Society			
2020	Speaker, Jordan Road School, Somers Point, NJ			
2020	Invited Speaker, Conferences for Undergraduate Women in Physics (CUWiP), TU			
2019	Speaker, Our Lady of Mercy Academy, Newfield, NJ			
2017	Panelist, Career Pathways Panel, AWIS Philadelphia, DU			
2016 - 2018	Director, Board of Directors, Challenger Learning Center of Philadelphia			
2016	Judge, Student Inventions through Education, Gifted and Talented Services			
2016	Panelist, Professional Women in STEM Round Table, Rowan University			
2013 - 2015	Scientist, Philadelphia Area Girls Enjoying Science (PAGES) Mini Conference			
2014 - 2016	Co-organizer, AWIS Philadelphia Chapter Mentoring Circle			
2014	Reviewer, AWIS Travel Awards			
2013 - 2015	Mentor, Owl-to-Owl Mentoring Program, Temple University			
2013 - 2014	Interviewer, Delaware Valley Science Council			
2011 - 2012	Volunteer, Philadelphia Science Festival			
2008 - 2011	Science Presenter, The Franklin Institute			
<b>Drexel University:</b>				
2024 –	Member, LMS University Advisory Committee			
2014 –	Member, Kaczmarczik Day Organizing Committee, Physics Department			
2024 - 2024	Member, Drexel Teaching Academy, Teaching and Learning Center			
2024	Presenter, Research Posters, ASURS Fund Event, College of Arts and Sciences			
2022 - 2023	Member, Intro Physics Workgroup, Physics Department			
2023	Web Committee, Physics Department			
2021 - 2022	Member, Program and Curricular Innovation Team,			
	Experiential Learning in the Classroom Environment Subcommittee			
2022	Co-Chair, DEI Committee, Physics Department			
2021	Invited Speaker, Freshman Physics Majors, UNIV 101, Physics Department			
2017 - 2021	Member, Undergraduate Committee, Physics Department			
2020	Invited Speaker, DELTA program, College of Engineering			
2019; 2021-2022	Panelist, Women in Physics Society, DU			
2017	Member, Graduate Common Good and Mentorship Award Committee,			
	College of Arts and Sciences			
2016 – 2018	Co-facilitator, Astroparticle Physics Workshops, Masterman High School			
2016	Member, Evidence-based Teaching Committee, College of Arts and Sciences			
2016	Member, FAR Rubric Committee, Physics Department			
2015	Member, Course Assessment Committee, Physics Department			
2015	Member, University Health Professions Committee, College of Arts & Sciences			
2015	Judge, University Research Day			

## **Conferences and Colloquia**

- 23. C. Love. *Civic Science Program with the IceCube Neutrino Observatory*. American Physical Society JNIPER Virtual Coffee Hour. July 2024.
- 22. C. Love. *Updates for Name that Neutrino*. IceCube Mid-Atlantic Meeting. University of Delaware, Newark, DE. June 2024.
- 21. S. Warnock, C. Love, A. Dickinson. *Launching an Arts and Sciences Research Support Fund to Connect Undergraduate Researchers and Faculty Mentors.* ConnectUR 2024 Annual Conference. Online. June 2024. 20. C. Love. *Citizen Science with the IceCube Neutrino Observatory.* Colloquium, Arcadia University,

Glenside, PA. Apr. 2024.

- 19. C. Love. *Public Engagement: IceCube Citizen Science and Start Talking Science*. 2023 Annual Meeting of the APS Mid-Atlantic Section, Newark, DE. Invited speaker. Nov. 2023.
- 18. "Observing Black Holes and Our Universe at the South Pole using Neutrinos," C. Love and N. Kurahashi Neilson. Table Talk, 2023 AAAS Annual Meeting, Washington D.C. Mar. 2023.
- 17. E. Warrick, C. Love, N. Kurahashi Neilson. *Citizen Science Zooniverse Project*. IceCube Collaboration Meeting, Madison, WI. Sept. 2022.
- 16. N. Wurmbach, C. Love, N. Sfiroudis. *Introducing Particle Physics to High School Students*. AAPT Winter Meeting, Atlanta, GA. Feb. 2017.
- 15. C. Love, B. Prefontaine, N. Kurahashi Neilson, E. Brewe. *An Immersive Research Program for High School Students*. AAPT Winter Meeting, Atlanta, GA. Feb. 2017.
- 14. B. Prefontaine, N. Kurahashi Neilson, C. Love. *The Development and Assessment of Particle Physics Summer Program for High School Students*. APS April Meeting, Washington D.C. Jan. 2017.
- 13. B. Prefontaine, N. Kurahashi Neilson, C. Love *The Development and Assessment of Particle Physics Summer Program for High School Students*. 2016 Annual Meeting of the APS Mid-Atlantic Section, Newark, DE. Invited plenary. Oct. 2016.
- 12. C. Love. *Evidence-based Methods for Teaching and STEM Major Education*. Department of Physics Colloquium, DU. Invited. Apr. 2016.
- 11. C. Love. *Improving STEM Education: Start Talking Science*. Academic Affairs Assembly Research Fair, DU. Feb. 2016.
- 10. N. Sfiroudis and C. Love. *Increasing knowledge and interest of high school students by using a complete teaching toolkit for particle physics*. DU Research Day. May 2015.
- 9. J. Iannello, C. Love, R. Krauss, and R. Klueg. *Modeling System Parameters for Dual-Energy Computed Tomography Contraband Detection*. Rowan University STEM Student Research Symposium. Apr. 2014.
- 8. C. Love. *Dark Matter and the DarkSide-10 Two-Phase Argon Time Projection Chamber*. Transportation Security Laboratory Seminar, Pomona, NJ. Jan. 2013.
- 7. C. Martin, for the DarkSide Collaboration. *Preliminary Analysis of Electroluminescence from DarkSide-10 Dark Matter Detector.* APS April Meeting, Atlanta, GA. Apr. 2012.
- 6. C. Martin, et al. *Preliminary Analysis from DarkSide-10 and Simulations for SCENE*. Temple University Colloquium, Philadelphia, PA. Feb. 2012.
- 5. C. Martin, et al. *Design of the HHV System for a Prototype Dark Matter Detector.* Temple University Colloquium, Philadelphia, PA. Sept. 2010.
- 4. Z. Dziembowski, C. Martin, and M. Luehrmann. *Googling for Physics Homework*. AAPT Summer Meeting. University of Michigan, Ann Arbor, MI. Jul. 2009.
- 3. C. Martin, et al. *Identifying WIMP recoils in Xenon Gas Scintillation*. National Nuclear Physics Summer School, Michigan State University, East Lansing, MI. Jun. 2009.
- 2. C. Martin, et al. Measured Nuclear Recoil Discrimination for HPGS, a Proposed Ton-Scale Dark Matter Search in Room Temperature Gas. APS April Meeting, Denver, CO. May 2009.
- 1. C. Martin, et al. *LET dependence of Pulse Shape for Xenon Gas Scintillation*. Student Research Poster Symposium. TU, Philadelphia, PA. Mar. 2009.

#### **Refereed Publications**

- 39. R. Abbasi, (C. Love) et al., "Acceptance Tests of more than 10 000 Photomultiplier Tubes for the multi-PMT Digital Optical Modules of the IceCube Upgrade" arXiv: 2404.19589 (2024).
- 38. R. Abbasi, (C. Love) et al., "Methods and stability tests associated with the sterile neutrino search using improved high-energy event reconstruction in IceCube" arXiv: 2405.08077 (2024).
- 37. R. Abbasi, (C. Love) et al., "A search for an eV-scale sterile neutrino using improved high-energy event reconstruction in IceCube" arXiv: 2405.08070 (2024).
- 36. R. Abbasi, (C. Love) et al., "Exploration of mass splitting and muon/tau mixing parameters for an eV-scale sterile neutrino with IceCube" arXiv: 2406.00905 (2024).
- 35. R. Abbasi, (C. Love) et al., "Search for neutrino emission from hard X-ray AGN with IceCube" arXiv: 2406.06684 (2024).
- 34. R. Abbasi, (C. Love) et al., "IceCube Search for Neutrino Emission from X-ray Bright Seyfert Galaxies" arXiv: 2406.07601 (2024).
- 33. R. Abbasi, (C. Love) et al., "Observation of Seven Astrophysical Tau Neutrino Candidates with IceCube" arXiv: 2403.02516 (2024).
- 32. R. Abbasi, (C. Love) et al., "Improved modeling of in-ice particle showers for IceCube event reconstruction" arXiv: 2403.02470 (2024).
- 31. R. Abbasi, (C. Love) et al., "Citizen Science for IceCube: Name that Neutrino" arXiv: 2401.11994 (2024). Invited.
- 30. R. Abbasi, (C. Love) et al., "Characterization of the Astrophysical Diffuse Neutrino Flux using Starting Track Events in IceCube" arXiv: 2402.18026 (2024).
- 29. R. Abbasi, (C. Love) et al., "Search for 10--1,000 GeV neutrinos from Gamma Ray Bursts with IceCube" arXiv: 2312.11515 (2023).
- 28. R. Abbasi, (C. Love) et al., "All-Sky Search for Transient Astrophysical Neutrino Emission with 10 Years of IceCube Cascade Events" arXiv: 2312.05362 (2023).
- 27. R. Abbasi, (C. Love) et al., "Search for Continuous and Transient Neutrino Emission Associated with IceCube's Highest-Energy Tracks: An 11-Year Analysis." Submitted to ApJ. arXiv: 2309.12130 (2023)
- 26. R. Abbasi, (C. Love) et al., "Searching for Decoherence from Quantum Gravity at the IceCube South Pole Neutrino Observatory." arXiv: 2308.00105 (2023).
- 25. R. Abbasi, (C. Love) et al., "The IceCube-Gen2 Collaboration -- Contributions to the 38th International Cosmic Ray Conference (ICRC2023)" arXiv: 2307.13048 (2023).
- 24. R. Abbasi, (C. Love) et al., "The IceCube Collaboration -- Contributions to the 38th International Cosmic Ray Conference (ICRC2023)" arXiv: 2307.13047 (2023).
- 23. R. Abbasi, (C. Love) et al., "Search for Extended Sources of Neutrino Emission in the Galactic Plane with IceCube" arXiv: 2307.07576 (2023).
- 22. R. Abbasi, (C. Love) et al., "Search for correlations of high-energy neutrinos detected in IceCube with radio-bright AGN and gamma-ray emission from blazars" arXiv: 2304.12675 (2023).
- 22. R. Abbasi, (C. Love) et al., "Measurement of Atmospheric Neutrino Mixing with Improved IceCube DeepCore Calibration and Data Processing" arXiv: 2304.12236 (2023).
- 20. R. Abbasi, (C. Love) et al., "IceCat-1: the IceCube Event Catalog of Alert Tracks" arXiv: 2304.01174 (2023).
- 19. R. Abbasi, (C. Love) et al., "A Search for IceCube sub-TeV Neutrinos Correlated with Gravitational-Wave Events Detected By LIGO/Virgo" arXiv: 2303.15970 (2023).
- 18. R. Abbasi, (C. Love) et al., "Search for neutrino lines from dark matter annihilation and decay with IceCube" arXiv: 2303.13663 (2023).
- 17. R. Abbasi, (C. Love) et al., "Observation of Seasonal Variations of the Flux of High-Energy Atmospheric Neutrinos with IceCube" arXiv: 2303.04682 (2023).
- 16. R. Abbasi, (C. Love) et al., "Constraining High-Energy Neutrino Emission from Supernovae with IceCube" arXiv: 303.03316 (2023).

### **Refereed Publications (continued)**

- 15. R. Abbasi, (C. Love) et al., "Limits on Neutrino Emission from GRB 221009A from MeV to PeV using the IceCube Neutrino Observatory" arXiv: 2302.05459 (2023).
- 14. R. Abbasi, (C. Love) et al., "Constraining High-Energy Neutrino Emission from Supernovae with IceCube" arXiv: 2303.03316 (2023).
- 13. R. Abbasi, (C. Love) et al., "D-Egg: a Dual PMT Optical Module for IceCube." arXiv: 2212.14526 (2023).
- 12. R. Abbasi, (C. Love) et al., "IceCube search for neutrinos coincident with gravitational wave events from LIGO/Virgo run O3" Submitted to The Astrophysical Journal, arXiv:2208.09532 (2022).
- 11. R. Abbasi, (C. Love) et al., "Graph Neural Networks for Low-Energy Event Classification & Reconstruction in IceCube." Submitted to JINST, arXiv: 2209.03042 (2022).
- 10. E. Edkins, (C. Love) et al., "The DarkSide Direct Dark Matter Search with Liquid Argon." AIP Conference Proceedings. (2017)
- 9. P. Agnes, (C. Love) et al., "Direct Search for Dark Matter with DarkSide." Journal of Physics Conference Series. (2015)
- 8. P. Agnes, (C. Love) et al., "First Results from the DarkSide-50 Experiment at Laboratori Nazionali del Gran Sasso." *Physics Letters B*, 743, pp. 456-466 (2015).
- 7. J. Xu, (C. Love) et al., "A study of the trace <sup>39</sup>Ar content in argon from deep underground sources." Astroparticle Physics, 66, pp. 53-60 (2015).
- 6. H. Cao, (C. Love) et al., "Measurement of Scintillation and Ionization Yield and Scintillation Pulse Shape from Nuclear Recoils in Liquid Argon." Phys. Rev. D 91, 092007 (2015).
- 5. L. Pagani, (C. Love) et al., "The DarkSide veto: muon and neutron detectors." Il Nuovo Cimento 38 C (2015).
- 4. P. Agnes, (C. Love) et al., "The Electronics and Data Acquisition System of the DarkSide Dark Matter Search." arXiv:1412.2969 (2014).
- 3. T. Alexander, (C. Love) et al., "DarkSide search for dark matter", JINST, 8, pp. C11021 (2013).
- 2. T. Alexander, (C. Love) et al., "Observation of the Dependence of Scintillation from Nuclear Recoils in Liquid Argon on Drift Field." Phys. Rev. D 88, 092006 (2013).
- 1. D. Akimov, (C. Love) et al., "Light Yield in DarkSide-10: a Prototype Two-phase Liquid Argon TPC for Dark Matter Searches." Astroparticle Physics 49, pp. 44-51 (2013).