Christopher L. H. Wrede
Facility for Rare Isotope Beams
Michigan State University
640 S. Shaw Lane, Room 2018
East Lansing, Michigan 48824-1321 (517) 908-7581
USA wrede@frib.msu.edu

Education

- **Yale University** New Haven, CT, USA
  Ph.D., physics, 2008 (experimental nuclear astrophysics)

  Thesis: *Nuclear energy levels of ^{31}S and astrophysical implications*

  M.Phil., physics, 2006
  M.S., physics, 2006

- **Simon Fraser University** Burnaby, BC, Canada
  M.Sc., physics, 2003 (experimental nuclear astrophysics)

  Thesis: *A double sided silicon strip detector as an end detector for the DRAGON recoil mass separator*

- **University of Victoria** Victoria, BC, Canada
  B.Sc., 2000, physics (major) philosophy (minor)

Employment

- **Professor of Physics** Jul 2021 - present
  Associate Professor of Physics Jul 2017 - Jun 2021
  Assistant Professor of Physics Aug 2011 - Jun 2017
  Department of Physics and Astronomy East Lansing, MI, USA
  Michigan State University
  Facility for Rare Isotope Beams (FRIB)

- **Research Associate** Apr 2008 - Aug 2011
  Department of Physics and Astronomy Seattle, WA, USA
  University of Washington
  Center for Experimental Nuclear Physics and Astrophysics (CENPA)

- **Research Assistant** May 2004 - Mar 2008
  Department of Physics New Haven, CT, USA
  Yale University
  Wright Nuclear Structure Laboratory (WNSL)

- **Research Assistant** May 2001 - Jul 2003
  Department of Physics Vancouver, BC, Canada
  Simon Fraser University
  TRI-University Meson Facility (TRIUMF)

Awards

- *Thomas H. Osgood Award for Excellence in Teaching*, Michigan State University, Department of Physics and Astronomy (2017)
- *Early Career Research Program*, U.S. Department of Energy, Office of Science (2016)

Funded Grants

- *Nuclear Physics of Compact Binaries*, Principal Investigator: Christopher L. H. Wrede, Awarding Agency: United States Department of Energy Office of Science, Effective Dates: 12/15/2022-12/14/2023, Total Amount Awarded Including Indirect Costs: $87,000, Total Amount Awarded to Wrede Including Indirect Costs: $87,000, Indirect Cost Rate: 56%
- *Windows on the Universe: Nuclear Astrophysics at FRIB*, Principal Investigator: Artemis Spyrou, Awarding Agency: U.S. National Science Foundation, Effective Dates: 8/01/2022-7/31/2025, Total Amount Awarded Including Indirect Costs: $6,000,000 (projected), Wrede role: Co-Principal Investigator
- *Nineteenth Exotic Beam Summer School*, Principal Investigator: Christopher L. H. Wrede, Awarding Agency: U.S. National Science Foundation, Effective Dates: 6/01/2022-5/31/2023, Total Amount Awarded Including Indirect Costs: $5,000, Total Amount Awarded to Wrede Including Indirect Costs: $5,000, Indirect Cost Rate: 55%
- *Windows on the Universe: Nuclear Astrophysics at the NSCL*, Principal Investigator: Artemis Spyrou, Awarding Agency: U.S. National Science Foundation, Effective Dates: 8/15/2019- 7/31/2022, Total Amount Awarded Including Indirect Costs: $5,570,292, Wrede role: Co-Principal Investigator
- *Eighteenth Exotic Beam Summer School*, Principal Investigator: Christopher L. H. Wrede, Awarding Agency: U.S. National Science Foundation, Effective Dates: 6/15/2018-5/31/2019, Total Amount Awarded Including Indirect Costs: $5,000, Total Amount Awarded to Wrede Including Indirect Costs: $5,000, Indirect Cost Rate: 55%
- *Seventeenth Exotic Beam Summer School*, Principal Investigator: Christopher L. H. Wrede, Awarding Agency: U.S. National Science Foundation, Effective Dates: 6/15/2018-5/31/2019, Total Amount Awarded Including Indirect Costs: $5,000, Total Amount Awarded to Wrede Including Indirect Costs: $5,000, Indirect Cost Rate: 55%
- *Critical Thermonuclear Reactions in Classical Novae and Type I X-ray Bursts*, Principal Investigator: Christopher L. H. Wrede, Awarding Agency: United States Department of Energy Office of Science Early Career Research Program, Effective Dates: 7/15/2016-7/15/2021, Total Amount Awarded Including Indirect Costs: $750,000, Total Amount Awarded to Wrede Including Indirect Costs: $750,000, Indirect Cost Rate: 55%
- *Operation of the NSCL as a National User Facility and Research Program*, Principal Investigator: Bradley Sherrill, Awarding Agency: U.S. National Science Foundation, Effective Dates: 10/1/2016- 9/30/2021, Total Amount Awarded Including Indirect Costs: $114,000,000.00, Total Amount Awarded to Wrede Including Indirect Costs: $1,200,000.00 (projected), Indirect Cost Rate: 55%, Wrede role: Senior Investigator

- *Operation of the NSCL as a National User Facility and Research Program*, Principal Investigator: C. Konrad Gelbke and Bradley Sherrill, Awarding Agency: U.S. National Science Foundation, Effective Dates: 11/15/2011-10/31/2016, Total Amount Awarded Including Indirect Costs: $112,500,000.00, Total Amount Awarded to Wrede Including Indirect Costs: $1,160,609.89, Indirect Cost Rate: 52%, Wrede role: Senior Investigator

- *JINA Center for the Evolution of the Elements*, Principal Investigator: Hendrik Schatz, Awarding Agency: U.S. National Science Foundation, Effective Dates: 9/1/2014-8/31/2019, Total Amount Awarded Including Indirect Costs: $11,400,000.00, Total Amount Awarded to Wrede Including Indirect Costs: $10,000.00 (projected), Indirect Cost Rate: 52%, Wrede role: Senior Collaborator

- *PFC: Joint Institute for Nuclear Astrophysics, JINA*, Principal Investigator: Michael Wiescher, Awarding Agency: U.S. National Science Foundation, Effective Dates: 9/1/2008-8/31/2014, Total Amount Awarded Including Indirect Costs: $13,090,000.00, Total Amount Awarded to Wrede Including Indirect Costs: $20,000.00 (approx.), Indirect Cost Rate: 52%, Wrede role: Senior Collaborator

Teaching

- **Instructor**
  Michigan State University
  Integrative Studies Phys. Sci. 205: Visions of the Universe

  Jan 2023 - May 2023
  Jan 2022 - May 2022
  Aug 2019 - Dec 2019
  Aug 2018 - Dec 2018
  Aug 2017 - Dec 2017
  Aug 2016 - Dec 2016
  Aug 2015 - Dec 2015
  Aug 2014 - Dec 2014
  Jan 2014 - May 2014
  Aug 2012 - Dec 2012
  Jan 2012 - May 2012

- **Instructor**
  Michigan State University
  Physics 215: Thermodynamics and Modern Physics

  Aug 2022 - Dec 2022
  Aug 2021 - Dec 2021
  Aug 2020 - Dec 2020

- **Instructor**
  Michigan State University
  Physics 440: Electronics

  Jan 2021 - May 2021
  Jan 2020 - May 2020
  Jan 2013 - May 2013

- **Instructor**
  Michigan State University
  Physics 983: Nuclear Astrophysics

  Jan 2019 - May 2019
  Jan 2017 - May 2017
  Jan 2015 - May 2015

- **Instructor**
  University of Washington
  Physics 401, 402, 403: Special Problems

  Apr 2009 - Jun 2011

- **Current Group Members**
  - ◇ Dr. Ruchi Mahajan, Ph.D., Research Associate, National Superconducting Cyclotron Laboratory (Fall 2020 - present)
  - ◇ Tyler Wheeler, B.S., Ph.D. Candidate, Michigan State University (Fall 2018 - present)
  - ◇ Joseph Dopfer, B.S., Ph.D. Candidate, Michigan State University (Summer 2021 - present)
  - ◇ Lexanne Weghorn, B.S., Ph.D. Candidate, Michigan State University (Summer 2021 - present)
  - ◇ Alexander Adams, B.S., Ph.D. Candidate, Michigan State University (Summer 2021 - present)
  - ◇ Logan Schaedig, Undergraduate Research Assistant, Michigan State University, (Spring 2021 - present)
  - ◇ Arian Andalib, Undergraduate Research Assistant, Michigan State University, (Fall 2021 - present)
  - ◇ Adam Jaros, Undergraduate Research Assistant, Michigan State University, (Fall 2022 - present)
- **Former Students and Post-Docs**
  - ◇ Dr. Jason Surbrook, B.S., Ph.D. Candidate, Michigan State University (Fall 2016 - Fall 2022)
  - ◇ Dr. Tamas Budner, B.S., Ph.D. Candidate, Michigan State University (Summer 2016 - Summer 2022). Presently Research Associate at Argonne National Laboratory.
  - ◇ Mr. Evan Argo, Undergraduate Research Assistant, Michigan State University, (Spring 2021 - Spring 2022). Presently Graduate Student at University of North Carolina at Chapel Hill.
  - ◇ Dr. Lijie Sun, Ph.D., Research Associate, National Superconducting Cyclotron Laboratory (Fall 2018 - Fall 2021). Presently Research Associate at Shanghai Jiao Tong University.
  - ◇ Ms. Molly Janasik, undergraduate, Michigan State University (Spring 2017 - Spring 2020). Presently Test Engineer and M.S. student at University of Arizona.
  - ◇ Dr. Moshe Friedman, Ph.D., Research Associate, National Superconducting Cyclotron Laboratory (Fall 2016 - Summer 2019). Presently Faculty at Hebrew University of Jerusalem.
  - ◇ Mr. Brent Glassman, B.S., Ph.D. Candidate, Michigan State University (Summer 2013 - Summer 2019). Presently Date Scientist at Frequence.
  - ◇ Mr. Jordan Stomps, undergraduate, Michigan State University (Fall 2017 - Summer 2019). Presently Graduate Student at University of Wisconsin.
  - ◇ Mr. Aaron Kruskie, undergraduate, Michigan State University (Summer 2019). Presently Graduate Student at Purdue University.
  - ◇ Ms. Cathleen Fry, graduate (Ph.D.), Michigan State University (Fall 2013 - Fall 2018). Presently Scientist at Los Alamos National Laboratory.

- ◇ Mr. Michael Roosa, undergraduate, Michigan State University (Spring 2017 - Summer 2018). Presently Graduate Student at Texas A and M University.
- ◇ Mr. Pranjal Tiwari, undergraduate, Michigan State University (Spring 2016 - Spring 2018). Presently Graduate Student at University of Toronto.
- ◇ Mr. Eric Aboud, undergraduate, Michigan State University (Fall 2015 - Summer 2017). Presently Postdoctoral Researcher at Lawrence Livermore National Laboratory.
- ◇ Dr. David Perez Loureiro, Ph.D., Research Associate, National Superconducting Cyclotron Laboratory (Fall 2013 - Fall 2016). Presently Applied Physicist, Canadian Nuclear Laboratories.
- ◇ Ms. Madison Harris, undergraduate, Michigan State University (Summer 2015 - Fall 2016)
- ◇ Mr. Michael Bennett, graduate (Ph.D.), Michigan State University (Autumn 2011 - Summer 2016). Presently Director for Education and Workforce Development at the Q-SEnSE NSF Quantum Leap Challenge Institute at the University of Colorado Boulder.
- ◇ Ms. Sarah Schwartz, undergraduate, REU from University of Southern Indiana (Summer 2013) and graduate (M.S.), Michigan State University (Summer 2014 - Spring 2016). Presently Scientist with U.S. Naval Surface Warfare Center Corona Division.
- ◇ Mr. Tyler Miller, undergraduate, Michigan State University (Summer 2015 - Fall 2015)
- ◇ Mr. Jesse Sakstrup, undergraduate, Michigan State University (Autumn 2013 - Spring 2015). Presently Fantasy Baseball Writer.
- ◇ Ms. Xu Xinyi, undergraduate, Xi'an Jiao Tong University and Michigan State University (Autumn 2014). Subsequently Ph.D. candidate in Electrical Engineering at North Carolina State University.
- ◇ Mr. Helin (Eric) Zhang, undergraduate, Xi'an Jiao Tong University and Michigan State University (Autumn 2013). Subsequently Ph.D. candidate in Physics at University of Chicago.
- ◇ Mr. Marco Santia, undergraduate, Michigan State University (Autumn 2011 - Summer 2013). Presently Senior Consultant - Modeling and Simulation Engineering, Booz Allen Hamilton.
- ◇ Mr. James Quaglia, undergraduate, Michigan State University (Autumn 2011 - Spring 2013). Presently CTO at USS Vision Inc.
- ◇ Mr. Safwan Shanab, undergraduate, Michigan State University (Autumn 2012 - Spring 2013). Subsequently Ph.D. in Physics at Michigan State University.
- ◇ Ms. Alice Bowe, undergraduate, REU from Kalamazoo College at Michigan State University (Summer 2012). Farm to School Coordinator at Traverse Bay Area Intermediate School District TBAISD.
- ◇ Mr. Ronaldo Ortez, undergraduate, REU from University of Washington at Michigan State University (Summer 2012). Subsequently Ph.D. candidate at University of California, Davis.
- ◇ Mr. Satoshi Utsuno, undergraduate, Keio University and University of Washington, Physics 402 (Winter 2011); Physics 403 (Spring 2011). Presently Engineer at DENSO.
- ◇ Ms. Anne Sallaska, graduate (Ph.D), University of Washington, Alejandro García advisor (Spring 2008 - Autumn 2010). Presently Senior Data Scientist at Uplevel.

- ◇ Mr. Brent Delbridge, undergraduate, University of Washington, Physics 402 (Winter 2010). Presently Scientist at Los Alamos National Laboratory.
- ◇ Mr. Blake Freeman, undergraduate, University of Washington, volunteer (Summer 2009); Physics 401 (Autumn 2009); Physics 402 (Winter 2010); Physics 403 (Spring 2010); volunteer (Summer 2010 - Spring 2011). Subsequently Ph.D. Candidate in Physics at University of California, Los Angeles. Presently System Design Engineer at Thermo Fisher Scientific.
- ◇ Mr. Devin Short, undergraduate, University of Washington, Physics 401 (Summer 2009); hourly (Autumn 2009). Presently Ph.D. Candidate in History at University of Washington.
- ◇ Ms. Rachel Vander Giessen, undergraduate, University of Washington, Physics 403 (Spring 2009); Physics 401 (Summer 2009). Subsequently Oceanographer the University of Washington.
- ◇ Mr. Andy Palmer, undergraduate, University of Washington, Alejandro García advisor (Spring 2008 - Summer 2010). Presently Web Developer at Grubstakers LLC.
- ◇ Ms. Kseniya Deryckx, undergraduate, University of Washington, Alejandro García advisor (Spring 2008, Summer 2008). Subsequently M.S. Candidate in Chemistry at University of Washington.

- **Thesis Committees**

- ◇ Chair, Joseph Dopfer, Michigan State University, Ph.D. thesis, expected 2026
- ◇ Chair, Tyler Wheeler, Michigan State University, Ph.D. thesis, expected 2024
- ◇ Chair, Jason Surbrook, Michigan State University, Ph.D. thesis, *A search for novel decay modes in beryllium-11*, Michigan State University, Ph.D. thesis, defended Jan 2023
- ◇ Chair, Tamas Budner, Michigan State University, Ph.D. thesis, *Study of* ^{28}*Mg and* ^{22}*Ne using fusion-evaporation and Doppler shift techniques*, Michigan State University, Ph.D. thesis, defended Aug 2022
- ◇ Adam Kawash, Michigan State University, Ph.D. thesis, *The galactic nova rate: estimates from all-sky time domain surveys*, Michigan State University, Ph.D. thesis, defended July 2022
- ◇ Aaron Magilligan, Michigan State University, Ph.D. thesis, *Isospin-Breaking Interactions in the Nuclear Shell Model*, defended July 2021
- ◇ Justin Lane, Michigan State University, Ph.D. thesis, *Integrating superconducting qubits with quantum fluids and surface acoustic wave devices*, defended June 2021
- ◇ Alicia Palmisano, Michigan State University, Ph.D. thesis, *Constraining the P Process: Cross Section Measurement of* ^{84}*Kr(p,*γ*)*^{85}*Rb*, defended Dec 2020
- ◇ Dustin Frisbie, Michigan State University, Ph.D. thesis, departed 2020
- ◇ Chair, Brent Glassman, ^{20}*Mg beta-decay and the* ^{15}*O(*α*,*γ*)*^{19}*Ne(p,*γ*)*^{20}*Na Reaction Sequence in Type I X-ray Bursts*, Michigan State University, Ph.D. thesis, defended June 2019

- ◇ External Examiner, Jonathan Williams, *Study of ^{28}Mg and ^{22}Ne using fusion-evaporation and Doppler shift techniques*, Simon Fraser University, Ph.D. thesis, defended Apr 2019
- ◇ Opponent, Laetitia Canete, *High Precision Mass Measurements for Nuclear Astrophysics*, University of Jyvaskyla, Ph.D. thesis, defended Mar 2019
- ◇ Chair, Cathleen Fry, *Using single neutron transfer reactions to constrain classical nova observables*, Michigan State University, Ph.D. thesis, defended Oct 2018
- ◇ Christopher Willis, Michigan State University, *A Search for High Mass Dilepton Resonances at Sqrt(s) = 14 TeV with the ATLAS Detector*, Ph.D. thesis, defended May 2018
- ◇ External Examiner, Jaspreet Randhawa, *Spectroscopy of ^{20}Mg of relevance to nuclear astrophysics*, Saint Mary's University, Ph.D. thesis, defended Jul 2017
- ◇ Tom Finzell, *Investigating Novae as Potential Type Ia Supernova Progenitors*, Michigan State University, Ph.D. thesis, defended Apr 2017
- ◇ Adam Jones, Michigan State University, Ph.D. thesis, departed 2016
- ◇ Stefan Rost, *Development of THGEM Based Detectors for AT-TPC Applications*, Michigan State University, M.S. thesis, defended Aug 2016
- ◇ Chair, Sarah Schwartz, *Observation of Doppler broadening in beta delayed proton-gamma decay*, Michigan State University, M.S. thesis, defended Apr 2016
- ◇ Greg Meece, Michigan State University, *AGN Feedback in Simulations of Galaxy Clusters*, Ph.D. thesis, defended Apr 2016
- ◇ Chair, Michael Bennett, Michigan State University, *Isospin mixing and the $^{30}P(p,\gamma)^{31}S$ reaction in novae*, Ph.D. thesis, defended Jul 2016
- ◇ Opponent, Morten Lund, *A search for exotic decay modes on the proton drip-line - the cases of $^{20-21}Mg$*, Aarhus University, Ph.D. thesis, defended Feb 2016
- ◇ LeShawna Valdez, Michigan State University, M.S. thesis, *Electron Captures in Supernovae*, defended Dec 2011

Substitute Instructor Jan 2012 - present

- Michigan State University East Lansing, MI, USA
  Department of Physics and Astronomy

- ◇ Physics 983: Nuclear Astrophysics. One lecture: *CNO Cycle* (Spring 2021).
- ◇ Physics 492/802: Survey of Nuclear Physics. One lecture: *Rare Isotopes: the DNA of Stellar Explosions* (Spring 2017).
- ◇ Physics 492/802: Survey of Nuclear Physics. One lecture: *Experimental Program at NSCL/FRIB* (Spring 2016).
- ◇ Integrative Studies in Physical Science 205: Visions of the Universe. Three lectures: *Telescopes, Solar System formation, Age of Solar System* (Spring 2014).
- ◇ Integrative Studies in Physical Science 205: Visions of the Universe. One lecture: *Motion of Earth, Moon, and Planets* (Fall 2019).

Co-Developer and Co-Instructor Mar 2011 - Jun 2011

- University of Washington Seattle, WA, USA
  Department of Physics

◇ Physics 499: Undergraduate Research (Basic Tools for Experimental Nuclear Physics). *Rutherford Scattering, Particle Detectors, Basic Electronics and Data Acquisition* (Spring 2011). Evolved into Physics 576: Selected Topics in Experimental Physics.

Substitute Instructor Nov 2009 - Jan 2010

- University of Washington Seattle, WA, USA
  Department of Physics

◇ Physics 114A: Mechanics. Five lectures: *Overview; Position and Velocity; Velocity and Acceleration; Vectors; r, v and a Vectors* (Winter 2010).

◇ Physics 116: Waves and Modern Physics. Two lectures: *Electromagnetic Waves I; Electromagnetic Waves II* (Autumn 2009).

Teaching Assistant Sep 2003 - May 2004, Jul 2005 - Aug 2005

- Yale University New Haven, CT, USA
  Department of Physics

Teaching Assistant Sep 2000 - Apr 2001

- Simon Fraser University Burnaby, BC, Canada
  Department of Physics

Publications

- L. J. Sun, C. Fry,, B. Davids, N. Esker, C. Wrede, M. Alcorta, S. Bhattacharjee, M. Bowry, B. A. Brown, T. Budner, R. Caballero-Folch, L. Evitts, M. Friedman, A. B. Garnsworthy, B. E. Glassman, G. Hackman, J. Henderson, O. S. Kirsebom, J. Lighthall, P. Machule, J. Measures, M. Moukaddam, J. Parke, C. Pearson, D. Perez-Loureiro, C. Ruiz, P. Ruotsalainen, J. Smallcombe, J. K. Smith, D. Southall, J. Surbrook, L. E. Weghorn, M. Williams, *First application of Markov Chain Monte Carlo-based Bayesian data analysis to the Doppler-Shift Attenuation Method*, Phys. Lett. B 893, 137801 (2023).

- T. Budner, M. Friedman, C. Wrede,B. A. Brown, J. Jose, D. Perez-Loureiro, L. J. Sun, J. Surbrook, Y. Ayyad, D. Bardayan, K. Chae, A. A. Chen, K. Chipps, M. Cortesi, B. Glassman, M. Hall, M. Janasik, J. Liang, P. O'Malley, E. Pollacco, A. Psaltis, J. Stomps, and T. Wheeler, *Constraining the* $^{30}P(p,\gamma)^{31}S$ *Reaction Rate in ONe Novae via the Weak, Low-Energy,* β*-Delayed Proton Decay of* ^{31}Cl, Phys. Rev. Lett. 128, 182701 (2022)

- H. Schatz *et al.*, *Horizons: nuclear astrophysics in the 2020s and beyond*, J. Phys. G 49, 110502 (2022)

- J. Surbrook, G. Bollen, M. Brodeur, A. Hamaker, D. Perez-Loureiro, D. Puentes, C. Nicoloff, M. Redshaw, R. Ringle, S. Schwarz, C.S. Sumithrarachchi, L.J. Sun, A.A. Valverde, A.C.C. Villari, C. Wrede, and I.T. Yandow *First Penning trap mass measurement of* ^{36}Ca, Phys. Rev. C 103, 014323 (2021)

- L. J. Sun, M. Friedman, T. Budner, D. Perez-Loureiro, E. Pollacco, C. Wrede, B. A. Brown, M. Cortesi, C. Fry, B. E. Glassman, J. Heideman, M. Janasik, A. Magilligan, M. Roosa, J. Stomps, J. Surbrook, and P. Tiwari, ^{25}Si β^+*-decay spectroscopy*, Phys. Rev. C 103, 014322 (2021)

- K. Setoodehnia, A.A. Chen, J. Chen, J.A. Clark, C.M. Deibel, J. Hendriks, D. Kahl, W.N. Lennard, P.D. Parker, D. Seiler, C. Wrede, *Level structure of* ^{31}S *via* $^{32}S(p,d)^{31}S$, Phys. Rev. C 102, 045806 (2020)

- W. A. Richter, B. Alex Brown, R. Longland, C. Wrede, P. Denissenkov, C. Fry, F. Herwig, D. Kurtulgil, M. Pignateri, R. Reifarth, *Shell-model studies of the astrophysical rp-process reactions* $^{34}S(p,\gamma)^{35}Cl$ *and* $^{34g,m}Cl(p,\gamma)^{35}Ar$, Phys. Rev. C 102, 025801 (2020)

- M. Friedman, T. Budner, D. Perez-Loureiro, E. Pollacco, C. Wrede, B. A. Brown, M. Cortesi, C. Fry, B. Glassman, J. Heideman, M. Janasik, M. Roosa, J. Stomps, J. Surbrook, P. Tiwari, and J. Yurkon, *Low-energy* ^{23}Al β*-delayed proton decay and* ^{22}Na *destruction in novae*, Phys. Rev. C 101, 052802(R) (2020)

- X. Sun, E. Adamek, B. Allgeier, Y. Bagdasarova, D. B. Berguno, M. Blatnik, T. J. Bowles, L. J. Broussard, M. A.-P. Brown, R. Carr, S. Clayton, C. Cude-Woods, S. Currie, E. B. Dees, X. Ding, B. W. Filippone, A. Garcia, P. Geltenbort, S. Hasan, K. P. Hickerson, J. Hoagland, R. Hong, G. E. Hogan, A. T. Holley, T. M. Ito, A. Knecht, C.-Y. Liu, J. Liu, M. Makela, R. Mammei, J. W. Martin, D. Melconian, M. P. Mendenhall, S. D. Moore, C. L. Morris, S. Nepal, N. Nouri, f R. W. Pattie, Jr., A. Perez Galvan, D. G. Phillips II, R. Picker, M. L. Pitt, B. Plaster, J. C. Ramsey, D. J. Salvat, A. Saunders, E. I. Sharapov, S. Sjue, S. Slutsky, W. Sondheim, C. Swank, E. Tatar, R. B. Vogelaar, B. VornDick, Z. Wang, W. Wei, J. Wexler, T. Womack, C. Wrede, A. R. Young, and B. A. Zeck, *Improved limits on*

Fierz Interference using asymmetry measurements from the UCNA experiment, Phys. Rev. C 101, 035503 (2020)*

* This article was highlighted as an *Editors' Suggestion.*

- B.E. Glassman, D. Perez-Loureiro, C. Wrede, J. Allen, D.W. Bardayan, M.B. Bennett, B.A. Brown, K.A. Chipps, M. Febbraro, C. Fry, M.R. Hall, O. Hall, S.N. Liddick, P. O'Malley, W. Ong, S.D. Pain, S.B. Schwartz, P. Shidling, H. Sims, L. J. Sun, P. Thompson, H. Zhang, *Superallowed* $0^+ \to 0^+$ *β decay of* ^{20}*Mg: Q*$_{EC}$ *value and βγ branching*, submitted, arxiv:1910.12965

- M. Friedman, D. Perez-Loureiro, T. Budner, E. Pollacco, C. Wrede, M. Cortesi, C. Fry, B. Glassman, M. Harris, J. Heideman, M. Janasik, B. T. Roeder, M. Roosa, A. Saastamoinen, J. Stomps, J. Surbrook, P. Tiwari, J. Yurkon, *GADGET: A Gaseous Detector with Germanium Tagging*, Nucl. Instrum. Methods Phys. Res., Sect. A 940, 93 (2019)

- B.E. Glassman, D. Perez-Loureiro, C. Wrede, J. Allen, D.W. Bardayan, M.B. Bennett, B.A. Brown, K.A. Chipps, M. Febbraro, M. Friedman, C. Fry, M.R. Hall, O. Hall, S.N. Liddick, P. O'Malley, W. Ong, S.D. Pain, S.B. Schwartz, P. Shidling, H. Sims, L. J. Sun, P. Thompson, H. Zhang, *Doppler Broadening in* ^{20}*Mg(βp)*^{19}*Ne Decay*, Phys. Rev. C 99, 065801 (2019)

- S. N. Paneru, C. R. Brune, R. Giri, R. J. Livesay, U. Greife, J. C. Blackmon, D. W. Bardayan, K.A. Chipps, B. Davids, D. S. Connolly, K. Y. Chae, A. E. Champagne, C. Deibel, K. L. Jones, M. S. Johnson, R. L. Kozub, Z. Ma, C. D. Nesaraja, S. D. Pain, F. Sarazin, J. F. Shriner, Jr., D. W. Stracener, M. S. Smith, J. S. Thomas, D. W. Visser, and C. Wrede, *s-wave scattering lengths for the* ^{7}*Be+p system from an R-matrix analysis*, Phys. Rev. C 99, 045807 (2019)

- E. Aboud, M.B. Bennett, C. Wrede, M. Friedman, S.N. Liddick, D. Perez-Loureiro, D.W. Bardayan, B.A. Brown, A.A. Chen, K.A. Chipps, C. Fry, B. Glassman, C. Langer, E.I. McNeice, Z. Meisel, W. Ong, P.D. O'Malley, S.D. Pain, C.J. Prokop, H. Schatz, S.B. Schwartz, S. Suchyta, P. Thompson, M. Walters, and X. Xu, *Toward complete spectroscopy using β decay: the case of* ^{32}*Cl(βγ)*^{32}*S*, Phys. Rev. C 98, 024309 (2018)

- M.B. Bennett, C. Wrede, B.A. Brown, S.N. Liddick, D. Perez-Loureiro, D.W. Bardayan, A.A. Chen, K.A. Chipps, C. Fry, B. Glassman, C. Langer, N. Larson, E.I. McNeice, Z. Meisel, W. Ong, P.D. O'Malley, S.D. Pain, C.J. Prokop, H. Schatz, S.B. Schwartz, S. Suchyta, P. Thompson, M. Walters, and X. Xu, *Detailed study of the decay* ^{31}*Cl(βγ)*^{31}*S*, Phys. Rev. C 97, 065803 (2018)

- X. Sun, E. Adamek, B. Allgeier, M. Blatnik, T.J. Bowles, L.J. Broussard, M. A.-P. Brown, R. Carr, S. Clayton, C. Cude-Woods, S. Currie, E.B. Dees, X. Ding, B.W. Filippone, A. Garcia, P. Geltenbort, S. Hasan, K.P. Hickerson, J. Hoagland, R. Hong, G.E. Hogan, A.T. Holley, T.M. Ito, A. Knecht, C.-Y. Liu, J. Liu, M. Makela, J.W. Martin, D. Melconian, M.P. Mendenhall, S. D. Moore, C.L. Morris, S. Nepal, N. Nouri, R.W. Pattie, Jr., A. Perez-Galvan, D.G. Phillips II, R. Picker, M.L. Pitt, B. Plaster, J.C. Ramsey, R. Rios, D. Salvat, A. Saunders, W. Sondheim, S. J. Seestrom, S. Sjue, S. Slutsky, C. Swank, E. Tatar, R.B. Vogelaar, B. VornDick, Z. Wang, J. Wexler, T. Womack, C. Wrede, A.R. Young, and B. A. Zeck, *Search for dark matter decay of the free neutron from the UCNA experiment:* $n \to \chi + e^+e^-$, Phys. Rev. C 97, 052501(R) (2018)

- M. A.-P. Brown, E.B. Dees, E. Adamek, B. Allgeier, M. Blatnik, T.J. Bowles, L.J. Broussard, R. Carr, S. Clayton, C. Cude-Woods, S. Currie, X. Ding, B.W. Filippone, A. Garcia, P. Geltenbort, S. Hasan, K.P. Hickerson, J. Hoagland, R. Hong, G.E. Hogan, A.T. Holley, T.M. Ito, A. Knecht, C.-Y. Liu, J. Liu, M. Makela, J.W. Martin, D. Melconian, M.P. Mendenhall, S. D. Moore, C.L. Morris, S. Nepal, N. Nouri, R.W. Pattie, Jr., A. Perez-Galvan, D.G. Phillips II, R. Picker, M.L. Pitt, B. Plaster, J.C. Ramsey, R. Rios, D. Salvat, A. Saunders, W. Sondheim, S. J. Seestrom, S. Sjue, S. Slutsky, X. Sun, C. Swank, E. Tatar, R.B. Vogelaar, B. VornDick, Z. Wang, J. Wexler, T. Womack, C. Wrede, A.R. Young, and B. A. Zeck, *New result for the neutron β-asymmetry parameter A_0 from UCNA*, Phys. Rev. C 97, 035505 (2018)*****

  ***** This article was highlighted as an *Editor's Suggestion.*

- B.E. Glassman, D. Perez-Loureiro, C. Wrede, J. Allen, D.W. Bardayan, M.B. Bennett, B.A. Brown, K.A. Chipps, M. Febbraro, M. Friedman, C. Fry, M.R. Hall, O. Hall, S.N. Liddick, P. O'Malley, W. Ong, S.D. Pain, S.B. Schwartz, P. Shidling, H. Sims, P. Thompson, H. Zhang, *β-delayed γ decay of ^{20}Mg and the ^{19}Ne(p,γ)^{20}Na breakout reaction in Type I X-ray bursts*, Phys. Lett. B 778, 397 (2018)

- G.P.A. Berg, M. Couder, M.T. Moran, K. Smith, M. Wiescher, H. Schatz, U. Hager, C. Wrede, F. Montes, G. Perdikakis, X. Wu, A. Zeller, M.S. Smith, D.W. Bardayan, K.A. Chipps, S.D. Pain, J. Blackmon, U. Greife, K.E. Rehm, R.V.F. Janssens, *Design of SECAR: a Recoil Mass Separator for Astrophysical Capture Reactions with Radioactive Beams*, Nucl. Instrum. Methods Phys. Res., Sect. A 877, 87 (2018)

- K. P. Hickerson, X. Sun, Y. Bagdasarova, D. B. Berguno, L. J. Broussard, M. A.-P. Brown, R. Carr, S. Currie, X. Ding, B. W. Filippone, A. Garcia, P. Geltenbort, J. Hoagland, A. T. Holley, R. Hong, T. M. Ito, A. Knecht, C.-Y. Liu, J. L. Liu, M. Makela, R. R. Mammei, J. W. Martin, D. Melconian, M. P. Mendenhall, S. D. Moore, C. L. Morris, R. W. Pattie, Jr., A. Perez Galvan, R. Picker, M. L. Pitt, B. Plaster, J. C. Ramsey, R. Rios, A. Saunders, S. J. Seestrom, E. I. Sharapov, W. E. Sondheim, E. Tatar, R. B. Vogelaar, B. VornDick, C. Wrede, A. R. Young, and B. A. Zeck, *First direct constraints on Fierz interference in free-neutron β decay*, Phys. Rev. C 96, 042501(R) (2017)

- C. Wrede, B.E. Glassman, D. Perez-Loureiro, J. Allen, D.W. Bardayan, M.B. Bennett, B.A. Brown, K.A. Chipps, M. Febbraro, C. Fry, M.R. Hall, O. Hall, S.N. Liddick, P. O'Malley, W. Ong, S.D. Pain, S.B. Schwartz, P. Shidling, H. Sims, P. Thompson, H. Zhang, *New portal to the ^{15}O(α,γ)^{19}Ne resonance triggering CNO-cycle breakout*, Phys. Rev. C 96, 032801(R) (2017)

- D. Perez-Loureiro, C. Wrede, M.B. Bennett, S.N. Liddick, A. Bowe, B.A. Brown, A.A. Chen, K.A. Chipps, N. Cooper, D. Irvine, E. McNeice, F. Montes, F. Naqvi, R. Ortez, S.D. Pain, J. Pereira, C. Prokop, J. Quaglia, S.J. Quinn, J. Sakstrup, M. Santia, S.B. Schwartz, S. Shanab, A. Simon, A. Spyrou, E. Thiagalingam, *Confirmation of the isomeric state in ^{26}P*, Phys. Rev. C 96, 014306 (2017)

- S. Triambak, L. Phuthu, A. Garcia, G.C. Harper, J.N. Orce, D. A. Short, S.P.R. Steininger, A. Diaz Varela, R. Dunlop, D.S. Jamieson, W.A. Richter, G.C. Ball, P.E. Garrett, C.E. Svensson, and C. Wrede, *The $2_1^+ \rightarrow 3_1^+$ gamma width in ^{22}Na and second class currents*, Phys. Rev. C 95, 035501 (2017)

- A. Parikh, C. Wrede, C. Fry, *Toward concordance of E_x and J^π values for proton unbound ^{31}S states*, Eur. Phys. J. Plus 131, 345 (2016)

- D. Perez-Loureiro, C. Wrede, M.B. Bennett, S.N. Liddick, A. Bowe, B.A. Brown, A.A. Chen, K.A. Chipps, N. Cooper, D. Irvine, E. McNeice, F. Montes, F. Naqvi, R. Ortez, S.D. Pain, J. Pereira, C. Prokop, J. Quaglia, S.J. Quinn, J. Sakstrup, M. Santia, S.B. Schwartz, S. Shanab, A. Simon, A. Spyrou, E. Thiagalingam, *β delayed γ decay of ^{26}P: Possible evidence of a proton halo*, Phys. Rev. C 93, 064320 (2016)

- M.B. Bennett, C. Wrede, B.A. Brown, S.N. Liddick, D. Perez-Loureiro, D.W. Bardayan, A.A. Chen, K.A. Chipps, C. Fry, B. Glassman, C. Langer, N. Larson, E.I. McNeice, Z. Meisel, W. Ong, P.D. O'Malley, S.D. Pain, C.J. Prokop, S.B. Schwartz, S. Suchyta, P. Thompson, M. Walters, and X. Xu, *Isobaric multiplet mass equation in the $A = 31$, $T = 3/2$ quartets*, Phys. Rev. C 93, 064310 (2016)

- M. B. Bennett, C. Wrede, B. A. Brown, S. N. Liddick, D. Perez-Loureiro, D. W. Bardayan, A. A. Chen, K. A. Chipps, C. Fry, B. Glassman, C. Langer, N. Larson, E. I. McNeice, Z. Meisel, W. Ong, P. D. O'Malley, S. D. Pain, C. J. Prokop, H. Schatz, S. B. Schwartz, S. Suchyta, P. Thompson, M. Walters, and X. Xu, *Isospin mixing reveals $^{30}P(p,\gamma)^{31}S$ resonance influencing nova nucleosynthesis*, Phys. Rev. Lett. 116, 102502 (2016)*****

  ***** This article was highlighted as an *Editor's Suggestion.*

- O.S. Kirsebom, C. Akers, P. Bender, A. Cheeseman, G. Christian, R. Churchman, D. Cross, B. Davids, L.J. Evitts, J. Fallis, N. Galinski, A.B. Garnsworthy, G. Hackman, L. Lighthall, S. Ketelhut, P. Machule, D. Miller, C. Nobs, C.J. Pearson, M.M. Rajabali, A. Radich, A. Rojas, C. Ruiz, A. Sanetullaev, C.D. Unsworth, C. Wrede, *Measurement of Lifetimes in ^{23}Mg*, Phys. Rev. C 93, 025802 (2016)

- B.E. Glassman, D. Perez-Loureiro, C. Wrede, J. Allen, D.W. Bardayan, M.B. Bennett, B.A. Brown, K.A. Chipps, M. Febbraro, C. Fry, M.R. Hall, O. Hall, S.N. Liddick, P. O'Malley, W. Ong, S.D. Pain, S.B. Schwartz, P. Shidling, H. Sims, P. Thompson, H. Zhang, *Revalidation of the isobaric multiplet mass equation for the $A = 20$ quintet*, Phys. Rev. C 92, 042501(R) (2015)

- S.B. Schwartz, C. Wrede, M.B. Bennett, S.N. Liddick, D. Perez-Loureiro, A. Bowe, A.A. Chen, K.A. Chipps, N. Cooper, D. Irvine, E. McNeice, F. Montes, F. Naqvi, R. Ortez, S.D. Pain, J. Pereira, C. Prokop, J. Quaglia, S.J. Quinn, J. Sakstrup, M. Santia, S. Shanab, A. Simon, A. Spyrou, E. Thiagalingam, *Observation of Doppler broadening in β delayed proton-γ decay*, Phys. Rev. C 92, 031302(R) (2015)

- C. Fry, C. Wrede, S. Bishop, B.A. Brown, A.A. Chen, T. Faestermann, R. Hertenberger, A. Parikh, D. Perez-Loureiro, H.-F. Wirth, A. García, R. Ortez, *Discovery of $^{34g,m}Cl(p,\gamma)^{35}Ar$ resonances activated at classical nova temperatures*, Phys. Rev. C 91, 015803 (2015)

- B. Alex Brown, W. A. Richter, C. Wrede, *Shell-model studies of the astrophysical rapid-proton-capture reaction $^{30}P(p,\gamma)^{31}S$*, Phys. Rev. C 89, 062801(R) (2014)

- C. Wrede, *The $^{30}P(p,\gamma)^{31}S$ reaction in classical novae: progress and prospects*, AIP Advances 4, 041004 (2014)*****

  ***** This article was highlighted temporarily as an *Editor's Suggestion.*

- A. García, S. Sjue, E. Swanson, C. Wrede, D. Melconian, A. Algora, I. Ahmad, *Decay studies for neutrino physics: Electron capture decays of ^{100}Tc and ^{116}In*, Hyperfine Interact. 223, 201 (2014)

- M.B. Bennett, C. Wrede, K.A. Chipps, J. José, S.N. Liddick, M. Santia, A. Bowe, A.A. Chen, N. Cooper, D. Irvine, E. McNeice, F. Montes, F. Naqvi, R. Ortez, S.D. Pain, J. Pereira, C. Prokop, J. Quaglia, S.J. Quinn, S.B. Schwartz, S. Shanab, A. Simon, A. Spyrou, E. Thiagalingam, *Classical nova contribution to the Milky Way's ^{26}Al abundance: Exit channel of the key $^{25}Al(p,\gamma)^{26}Si$ resonance*, Phys. Rev. Lett. 111, 232503 (2013)

- D. Irvine, A.A. Chen, A. Parikh, K. Setoodehnia, T. Faestermann, R. Hertenberger, H.-F. Wirth, V. Bildstein, S. Bishop, J.A. Clark, C.M. Deibel, J. Hendriks, C. Herlitzius, R. Krucken, W.N. Lennard, O. Lepyoshkina, R. Longland, G. Rugel, D. Seiler, K. Straub, C. Wrede, *Evidence for the existence of the astrophysically important 6.40-MeV state of ^{31}S*, Phys. Rev. C 88, 055803 (2013).

- J. Fallis, A. Parikh, P. Bertone, S. Bishop, L. Buchmann, J.A. Clark, A.A. Chen, G. Christian, J.M. D'Auria, B. Davids, C.M. Deibel, U. Greife, B. Guo, U. Hager, C. Herlitzius, D.A. Hutcheon, J. José, A.M. Laird, E. Li, Z. Li, G. Lian, W. Liu, L, Martin, K. Nelson, D. Ottewell, P.D. Parker, S. Reeve, A. Rojas, C. Ruiz, K. Setoodehnia, S. Sjue, C. Vockenhuber, Y. Wang, C. Wrede, *Constraining nova observables: Direct measurements of resonance strengths in $^{33}S(p,\gamma)^{34}Cl$*, Phys. Rev. C 88, 045801 (2013)

- K. Setoodehnia, A.A. Chen, Y. Abe, Dam N. Binh, J. Chen, S. Cherubini, J.A. Clark, C.M. Deibel, S. Fukuoka, T. Hashimoto, T. Hayakawa, J. Hendriks, Y. Ishibashi, Y. Ito, J. José, D. Kahl, T. Komatsubara, S. Kubono, W.N. Lennard, R. Longland, T. Moriguchi, D. Nagae, R. Nishikiori, T. Niwa, A. Ozawa, P.D. Parker, D. Seiler, T. Shizuma, H. Suzuki, C. Wrede, H. Yamaguchi, T. Yuasa, *Nuclear structure of ^{30}S and its implications for nucleosynthesis in classical novae*, Phys. Rev. C 87, 065801 (2013).

- M.P. Mendenhall, R.W. Pattie, Jr., Y. Bagdasarova, D.B. Berguno, L.J. Broussard, R. Carr, S. Clayton, S. Currie, X. Ding, B.W. Filippone, A. García, P. Geltenbort, K.P. Hickerson, J. Hoagland, G.E. Hogan, A.T. Holley, R. Hong, T.M. Ito, A. Knecht, C.-Y. Liu, J.L. Liu, M. Makela, R.R. Mammei, J.W. Martin, D. Melconian, S.D. Moore, C.L. Morris, A. Pérez Galávan, R. Picker, M.L. Pitt, B. Plaster, R. Rios, A. Saunders, S.J. Seestrom, W.E. Sondheim, E. Tatar, R.B. Vogelaar, B. VornDick, C. Wrede, A.R. Young, B.A. Zeck, *Precision Measurement of the Neutron Beta-Decay Asymmetry*, Phys. Rev. C 87, 032501(R) (2013).

- C. Wrede, S.K.L. Sjue, A. García, H. E. Swanson, I. Ahmad, A. Algora, V.-V. Elomaa, T. Eronen, J. Hakala, A. Jokinen, V.S. Kolhinen, I.D. Moore, H. Penttilä, M. Reponen, J. Rissanen, A. Saastamoinen, J. Äystö, *Electron capture on ^{116}In and implications for nuclear structure relevant to double-β decay*, Phys. Rev. C 87, 031303(R) (2013).

- B. Plaster, R. Rios, H.O. Back, T.J. Bowles, L.J. Broussard, R. Carr, S. Clayton, S. Currie, B.W. Filippone, A. García, P. Geltenbort, K.P. Hickerson, J. Hoagland, G.E. Hogan, B. Hona, A.T. Holley, T.M. Ito, C.-Y. Liu, J. Liu, M. Makela, R.R. Mammei, J.W. Martin, D. Melconian, M.P. Mendenhall, C.L. Morris, R. Mortenson, R.W. Pattie, Jr., A. Pérez Galávan, M.L. Pitt, J.C. Ramsey, R. Russell, A. Saunders, R. Schmid, S.J. Seestrom, S. Sjue, W.E. Sondheim, E. Tatar, B. Tipton, R.B. Vogelaar, B. VornDick, C. Wrede, X.P. Xu,

H. Yan, A.R. Young, J. Yuan, *Measurement of the neutron β-asymmetry parameter A_0 with ultracold neutrons*, Phys. Rev. C 86, 055501 (2012).

- C. Wrede, A. García, D. Melconian, S. Triambak, B.A. Brown, *γ-ray constraints on the properties of unbound ^{32}Cl levels*, Phys. Rev. C 86, 047305 (2012).

- A. Knecht, R. Hong, D.W. Zumwalt, B.G. Delbridge, A. García, P. Müller, H.E. Swanson, I.S. Towner, S. Utsuno, W. Williams, C. Wrede, *Precision measurement of the ^{6}He Half-Life and the Weak Axial Current in Nuclei*, Phys. Rev. C 86, 035506 (2012).*

  * This article was highlighted as an *Editors' Suggestion.*

- A. Knecht, R. Hong, D.W. Zumwalt, B.G. Delbridge, A. García, P. Müller, H.E. Swanson, I.S. Towner, S. Utsuno, W. Williams, C. Wrede, *Precision measurement of the ^{6}He Half-Life and the Weak Axial Current in Nuclei*, Phys. Rev. Lett. 108, 122502 (2012).

- A. Parikh, K. Wimmer, T. Faestermann, R. Hertenberger, H.-F. Wirth, A. A. Chen, J. A. Clark, C. M. Deibel, C. Herlitzius, R. Krücken, D. Seiler, K. Setoodehnia, K. Straub, C. Wrede, *Production of ^{26}Al in stellar hydrogen-burning environments: spectroscopic properties of states in ^{27}Si*, Phys. Rev. C, 84, 065808 (2011).

- A. Knecht, D.W. Zumwalt, B.G. Delbridge, A. García, G.C. Harper, R. Hong, P. Müller, A.S.C. Palmer, R.G.H. Robertson, H.E. Swanson, S. Utsuno, D.I. Will, W. Williams, C. Wrede, *A High-Intensity Source of ^{6}He Atoms for Fundamental Research*, Nucl. Instrum. Methods A, 660, 43 (2011).

- J. Fallis, J.A. Clark, K.S. Sharma, G. Savard, F. Buchinger, S. Caldwell, J.E. Crawford, C. Deibel, S. Gulick, A.A. Hecht, D. Lascar, J.K.P. Lee, A.F. Levand, G. Li, B.F. Lundgren, A. Parikh, S. Russell, M. Scholte-van de Vorst, N.D. Scielzo, R.E. Segel, H. Sharma, S. Sinha, M. Sternberg, T. Sun, I. Tanihata, J. Van Schelt, J.C. Wang, Y. Wang, C. Wrede, Z. Zhou, *Mass measurements of isotopes of Nb, Mo, Tc, Ru, and Rh along the νp- and rp-process paths using the Canadian Penning Trap mass spectrometer*, Phys. Rev. C 84, 045807 (2011).

- A. Parikh, K. Wimmer, T. Faestermann, R. Hertenberger, J. José, R. Longland, H.-F. Wirth, V. Bildstein, S. Bishop, A. A. Chen, J. A. Clark, C. M. Deibel, C. Herlitzius, R. Krücken, D. Seiler, K. Straub, C. Wrede, *Improving the $^{30}P(p,\gamma)^{31}S$ rate in ONe novae: Constraints on J^π values for proton-threshold states in ^{31}S*, Phys. Rev. C 83, 045806 (2011).

- B.M. Freeman, C. Wrede, B. Delbridge, A. García, A. Knecht, A. Parikh, A. Sallaska, *Branches of $^{33}S(p,\gamma)^{34}$Cl at oxygen-neon nova temperatures*, Phys. Rev. C 83, 048801 (2011).

- C. Wrede, B. W. Filippone, A. García, G. C. Harper, S. Lassell, J. Liu, M. P. Mendenhall, A. S. C. Palmer, R. W. Pattie, Jr., D. I. Will, A. R. Young, *Preparation of ^{114m}In low energy conversion electron sources*, Nucl. Instrum. Methods B 269, 1113 (2011).*

  * U.S. Patent Application No. 61/441,913, unpublished (filing date Feb. 1, 2011) (Christopher Wrede *et al.*, applicants)

- A. L. Sallaska, C. Wrede, A. García, D. W. Storm, T. A. D. Brown, C. Ruiz, K. Snover, D. F. Ottewell, L. Buchmann, C. Vockenhuber, D. A. Hutcheon, J. A. Caggiano, J. José *Absolute Determination of the $^{22}Na(p,\gamma)$ Reaction Rate in Novae*, Phys. Rev. C 83, 034611 (2011).

- C. Wrede, K. Deryckx, B. M. Freeman, A. García, G. C. Harper, A. S. C. Palmer, D. A. Short, D. I. Will, *Preparation of ^{20}Ne, ^{24}Mg, ^{28}Si, ^{32}S, and ^{36}Ar targets by ion implantation into thin carbon foils*, Nucl. Instrum. Methods B 268, 3482 (2010).

- J. Liu, M.P. Mendenhall, A.T. Holley, H. O. Back, T.J. Bowles, L.J. Broussard, S. Clayton, S. Currie, B.W. Filippone, A.P. Galvan, A. García, P. Geltenbort, K.P. Hickerson, J. Hoagland, G.E. Hogan, B. Hona, T.M. Ito, C.-Y. Liu, M. Makela, R.R. Mammei, J.W. Martin, D. Melconian, N. Meier, C.L. Morris, R.W. Pattie Jr., B. Plaster, J.C. Ramsey, R. Rios, R. Russell, A. Saunders, S. Seestrom, W.E. Sondheim, E. Tatar, R.B. Vogelaar, B. VornDick, C. Wrede, H. Yan, A.R. Young, and J. Yuan, *Determination of the axial coupling constant from polarized ultracold neutrons*, Phys. Rev. Lett. 105, 181803 (2010).

- A. L. Sallaska, C. Wrede, A. García, D. W. Storm, T. A. D. Brown, C. Ruiz, K. Snover, D. F. Ottewell, L. Buchmann, C. Vockenhuber, D. A. Hutcheon, J. A. Caggiano, *Direct measurements of $^{22}Na(p,\gamma)^{23}Mg$ resonances and consequences for ^{22}Na production in classical novae*, Phys. Rev. Lett. 105, 152501 (2010); *ibid.* 105, 209901 (2010).

- C. Wrede, J. A. Clark, C. M. Deibel, T. Faestermann, R. Hertenberger, A. Parikh, H. Wirth, S. Bishop, A. A. Chen, K. Eppinger, B. M. Freeman, R. Krücken, O. Lepyoshkina, G. Rugel, K. Setoodehnia, *Properties of ^{20}Na, ^{24}Al, ^{28}P, ^{32}Cl, and ^{36}K for studies of explosive hydrogen burning*, Phys. Rev. C 82, 035805 (2010).

- K. Setoodehnia, A. A. Chen, J. Chen, J. A. Clark, C. M. Deibel, S. D. Geraedts, D. Kahl, P. D. Parker, D. Seiler, C. Wrede, *Structure of ^{30}S with $^{32}S(p,t)^{30}S$ and the thermonuclear $^{29}P(p,\gamma)^{30}S$ reaction rate*, Phys. Rev. C 82, 022801(R) (2010).*****

  ***** This article was highlighted in a *Physics* Synopsis, *Cosmic backtracking*, October 11^{th}, 2010.

- C. Wrede, J. A. Clark, C. M. Deibel, T. Faestermann, R. Hertenberger, A. Parikh, H.-F. Wirth, S. Bishop, A. A. Chen, K. Eppinger, A. García, R. Krücken, O. Lepyoshkina, G. Rugel, K. Setoodehnia, *Toward precise Q_{EC} values for the superallowed $0^+ \rightarrow 0^+$ β decays of $T = 2$ nuclides: The masses of ^{20}Na, ^{24}Al, ^{28}P, and ^{32}Cl*, Phys. Rev. C 81, 055503 (2010).

- L. Erikson, C. Ruiz, F. Ames, P. Bricault, L. Buchmann, A. A. Chen, J. Chen, H. Dare, B. Davids, C. Davis, C. Deibel, M. Dombsky, S. Foubister, N. Galinski, U. Greife, U. Hager, A. Hussein, D.A. Hutcheon, J. Lassen, L. Martin, D.F. Ottewell, C.V. Ouellet, G. Ruprecht, K. Setoodehnia, A.C. Shotter, A. Teigelhöfer, C. Vockenhuber, C. Wrede, A. Wallner *First direct measurement of the $^{23}Mg(p,\gamma)^{24}Al$ reaction*, Phys. Rev. C 81, 045808 (2010).

- C.M. Deibel, J.A. Clark, R. Lewis, A. Parikh, P.D. Parker, C. Wrede, *Toward an experimentally determined $^{26m}Al(p,\gamma)^{27}Si$ reaction rate in ONe novae*, Phys. Rev. C 80, 035806 (2009).

- T.A.D. Brown, K. Deryckx, A. García, A. L. Sallaska, K. A. Snover, D. W. Storm, C. Wrede, *Properties of ^{23}Na implanted targets*, Nucl. Instrum. Methods B 267, 3302 (2009).

- C. Wrede, J.A. Caggiano, J.A. Clark, C.M. Deibel, A. Parikh, P.D. Parker, *Thermonuclear $^{30}S(p,\gamma)^{31}Cl$ reaction in type I x-ray bursts*, Phys. Rev. C 79, 045808 (2009); *ibid.* 80, 019904(E) (2009).

- C. Wrede, J.A. Caggiano, J.A. Clark, C.M. Deibel, A. Parikh, P.D. Parker, *Measurements of ^{31}S energy levels and reevaluation of the thermonuclear resonant $^{30}P(p,\gamma)^{31}S$ reaction rate*, Phys. Rev. C 79, 045803 (2009).*****

  ***** This article was highlighted in a *Physics* Synopsis, *Nuclear star gazing*, April 13^{th}, 2009.

- C. Wrede, *Thermonuclear $^{25}Al(p,\gamma)^{26}Si$ reaction rate in classical novae and Galactic ^{26}Al*, Phys. Rev. C 79, 035803 (2009).

- B.P. Kay, J.P. Schiffer, S.J. Freeman, T. Adachi, J.A. Clark, C.M. Deibel, H. Fujita, P. Grabmayr, H. Hatanaka, D. Ishikawa, H. Matsubara, Y. Meada, H. Okamura, K.E. Rehm, Y. Sakemi, Y. Shimizu, H. Shimoda, K. Suda, Y. Tameshige, A. Tamii, C. Wrede, *Nuclear Structure Relevant to Neutrinoless Double β Decay: the Valence Protons in ^{76}Ge and ^{76}Se*, Phys. Rev. C 79, 021301(R) (2009).

- J. Fallis, J.A. Clark, K.S. Sharma, G. Savard, F. Buchinger, S. Caldwell, J.E. Crawford, C. Deibel, S. Gulick, A.A. Hecht, D. Lascar, J.K.P. Lee, A.F. Levand, G. Li, B.F. Lundgren, A. Parikh, S. Russell, M. Scholte-van de Vorst, N.D. Scielzo, R.E. Segel, S. Sinha, M. Sternberg, T. Sun, J. Van Schelt, I. Tanihata, J.C. Wang, Y. Wang, C. Wrede, Z. Zhou, *A determination of the proton separation energy of ^{93}Rh from mass measurements*, Phys. Rev. C 78, 022801(R) (2008).

- D.W. Visser, C. Wrede, J.A. Caggiano, J.A. Clark, C. Deibel, R.Lewis, A. Parikh, P.D. Parker, *Addendum to "Measurement of $^{23}Mg(p,\gamma)^{24}Al$ resonance energies"*, Phys. Rev. C 78, 028802 (2008).

- J.P. Schiffer, S.J. Freeman, J.A. Clark, C. Deibel, C.R. Fitzpatrick, S. Gros, A. Heinz, D. Hirata, C.L. Jiang, B.P. Kay, A. Parikh, P.D. Parker, K.E. Rehm, X.D. Tang, A.C.C. Villari, V. Werner, C. Wrede, *Nuclear Structure Relevant to Neutrinoless Double β Decay: ^{76}Ge and ^{76}Se*, Phys. Rev. Lett. 100, 112501 (2008).

- B.P. Kay, S.J. Freeman, J.P. Schiffer, J.A. Clark, C. Deibel, A. Heinz, A. Parikh, P.D. Parker, K.E. Rehm, C. Wrede, *High-j single-particle neutron states outside the $N = 82$ core*, Phys. Lett. B 658, 216 (2008).

- D.W. Visser, C. Wrede, J.A. Caggiano, J.A. Clark, C. Deibel, R.Lewis, A. Parikh, P.D. Parker, *Measurement of $^{23}Mg(p,\gamma)^{24}Al$ resonance energies*, Phys. Rev. C 76, 065803 (2007).

- C. Wrede, J.A. Caggiano, J.A. Clark, C. Deibel, A. Parikh, P.D. Parker, *New $^{30}P(p,\gamma)^{31}S$ resonances and nucleosynthesis in oxygen-neon novae*, Phys. Rev. C 76, 052802(R) (2007).

- C. Ugalde, A. Champagne, S. Daigle, C. Iliadis, R. Longland, J. Newton, E. Osenbaugh, J. Clark, C. Deibel, A. Parikh, P. Parker, and C. Wrede, *Experimental evidence for a natural parity state in ^{26}Mg and its impact on the production of neutrons for the s process*, Phys. Rev. C 76, 025802 (2007).

- S.J. Freeman, J.P. Schiffer, A.C.C. Villari, J.A. Clark, C. Deibel, S. Gros, A. Heinz, D. Hirata, C.L. Jiang, B.P. Kay, A. Parikh, P.D. Parker, J. Qian, K.E. Rehm, X.D. Tang, V. Werner, C. Wrede, *Pair Correlations in Nuclei Involved in Neutrinoless Double Beta Decay: ^{76}Ge and ^{76}Se*, Phys. Rev. C 75, 051301(R) (2007).

- C. Matei, L. Buchmann, W.R. Hannes, D.A. Hutcheon, C. Ruiz, C.R. Brune, J. Caggiano, A.A. Chen, J. D'Auria, A. Laird, M. Lamey, Z.H. Li, W.P. Liu, A. Olin, D. Ottewell, J. Pearson, G. Ruprecht, M. Trinczek, C. Vockenhuber, C.Wrede, *Measurement of the Cascade Transition via the First Excited State of ^{16}O in the $^{12}C(\alpha,\gamma)^{16}O$ Reaction, and its S-factor in Stellar Helium Burning*, Phys. Rev. Lett. 97, 242503 (2006).

- C. Ruiz, A. Parikh, J. Jose, L. Buchmann, J.A. Caggiano, A.A. Chen, J.A. Clark, H. Crawford, B. Davids, J.M. D'Auria, C. Davis, C. Deibel, L. Erikson, L. Fogarty, D. Frekers, U. Greife, A. Hussein, D.A. Hutcheon, M. Huyse, C. Jewett, A.M. Laird, R. Lewis, P Mumby-Croft, A. Olin, D.F. Ottewell, C.V. Ouellet, P. Parker, J. Pearson, G. Ruprecht, M. Trinczek, C. Vockenhuber, C. Wrede, *Measurement of the $E_{C.M.}$ = 184 keV resonance in the $^{26g}Al(p,\gamma)^{27}Si$ reaction*, Phys. Rev. Lett. 96, 252501 (2006).

- S. Engel, D. Hutcheon, S. Bishop, L. Buchmann, J. Caggiano, M.L. Chatterjee, A.A. Chen, J. D'Auria, D. Gigliotti, U. Greife, D. Hunter, A. Hussein, C.C. Jewett, A. Laird, M. Lamey, W. Liu, A. Olin, D. Ottewell, J. Pearson, J.G. Rogers, C. Ruiz, G. Ruprecht, M. Trinczek, C. Vockenhuber, C. Wrede, *Commissioning the TRIUMF DRAGON facility using stable beams from ISAC*, Nucl. Instrum. Methods A 553, 491 (2005).

- A. Parikh, J. Caggiano, C. Deibel, J.P. Greene, R.Lewis, P.D. Parker, C.Wrede, *Mass measurements of ^{22}Mg and ^{26}Si via the $^{24}Mg(p,t)^{22}Mg$ and $^{28}Si(p,t)^{26}Si$ reactions*, Phys. Rev. C 71, 055804 (2005).

- J.M. D'Auria, R.E. Azuma, S. Bishop, L. Buchmann, M.L. Chatterjee, A.A. Chen, S. Engel, D. Gigliotti, U. Greife, D. Hunter, A. Hussein, D. Hutcheon, C. Jewett, J. Jose, J.D. King, M. Lamey, R. Lewis, W. Liu, A. Olin, D. Ottewell, P. Parker, J. Rogers, C. Ruiz, M. Trinczek, C. Wrede, *The $^{21}Na(p,\gamma)^{22}Mg$ Reaction from $E_{C.M.}$ = 200 to 1103 keV in Novae and X-ray Bursts*, Phys. Rev. C 69, 065803 (2004).

- U. Greife, S. Bishop, L. Buchmann, M.L. Chatterjee, A.A. Chen, J.M. D'Auria, S. Engel, D. Gigliotti, U. Greife, D. Hunter, D.A. Hutcheon, A. Hussein, C.C. Jewett, A.M. Laird, M. Lamey, W. Liu, A. Olin, D. Ottewell, J.G. Rogers, C. Wrede, *Energy loss around the stopping power maximum of Ne, Mg and Na ions in hydrogen gas*, Nucl. Instrum. Methods B 217, 1 (2004).

- S. Bishop, R.E. Azuma, L. Buchmann, M.L. Chatterjee, A.A. Chen, J.M. D'Auria, S. Engel, D. Gigliotti, U. Greife, M. Hernanz, D. Hunter, A. Hussein, D.A. Hutcheon, C.C. Jewett, J. Jose, J. King, S. Kubono, M. Lamey, R. Lewis, W. Liu, S. Michimasa, A. Olin, D. Ottewell, P.D. Parker, J.G. Rogers, F. Strieder, C. Wrede, *$^{21}Na(p,\gamma)^{22}Mg$ Reaction and Oxygen-Neon Novae*, Phys. Rev. Lett. 90, 162501 (2003).

- D.A. Hutcheon, S. Bishop, L. Buchmann, M.L. Chatterjee, A.A. Chen, J.M. D'Auria, S. Engel, D. Gigliotti, U. Greife, D. Hunter, A. Hussein, C.C. Jewett, N. Khan, A.M. Laird, M. Lamey, W. Liu, A. Olin, D. Ottewell, J.G. Rogers, G. Roy, H. Sprenger, C. Wrede, *The DRAGON Facility for Nuclear Astrophysics at TRIUMF-ISAC: Design, Construction and Operation*, Nucl. Instrum. Methods A 498, 190 (2003).

Leadership of Experiments at Large National User Facilities

- Spokesperson
  Facility for Rare Isotope Beams (FRIB), Experiment 23049

Commissioning the PXCT Setup
PAC2 evaluation: pending; 48 hours of beam time requested
Status: pending

- Spokesperson
  Facility for Rare Isotope Beams (FRIB), Experiment 23035
  Is there a NiCu Cycle in X-ray Bursts?
  PAC2 evaluation: pending; 120 hours of beam time requested
  Status: pending

- Spokesperson
  Facility for Rare Isotope Beams (FRIB), Experiment 21072
  Strength of the key $^{15}O(\alpha,\gamma)^{19}Ne$ resonance in X-ray bursts
  PAC1 evaluation: approved; 54 (on target) + 24 (beam tuning) hours of beam time allotted
  Status: completed

- Spokesperson
  National Superconducting Cyclotron Laboratory (NSCL), Experiment 19030
  Search for novel decay modes
  PAC43 evaluation: approved; 95 hours of beam time allotted
  Status: completed

- Spokesperson
  National Superconducting Cyclotron Laboratory (NSCL), Experiment 18507
  Additional time for e17023
  Approved by NSCL Director; 24 hours of beam time allotted
  Status: completed

- Spokesperson
  National Superconducting Cyclotron Laboratory (NSCL), Experiment 18033
  The XRBTPC Experiment
  PAC42 evaluation: approved; 259 hours of beam time allotted
  Status: never scheduled (resubmitted to FRIB PAC1)

- Spokesperson
  National Superconducting Cyclotron Laboratory (NSCL), Experiment 17024
  Beta delayed proton decay of ^{31}Cl
  PAC41 evaluation: proposal conditionally approved; 117 hours of beam time allotted
  Status: completed

- Spokesperson
  National Superconducting Cyclotron Laboratory (NSCL), Experiment 17023
  Commissioning a new proton detector
  PAC41 evaluation: approved; 117 hours of beam time allotted; Status: completed

- Co-spokesperson
  Tri-University Meson Facility (TRIUMF), Experiment S1582
  $^{30}P(p,\gamma)^{31}S$ Reaction Rate in Novae: Lifetimes of ^{31}S States
  EEC evaluation: approved with medium priority
  Status: completed

- Spokesperson
  National Superconducting Cyclotron Laboratory (NSCL), Experiment 14066
  Science with ^{20}Mg
  PAC 38 evaluation: approved; 127 hours of beam time allotted
  Status: completed

- Spokesperson
  National Superconducting Cyclotron Laboratory (NSCL), Experiment 12028
  Are Presolar Nova grains from Novae?
  PAC 37 evaluation: approved; 123 hours of beam time allotted
  Status: completed

- Spokesperson
  National Superconducting Cyclotron Laboratory (NSCL), Experiment 10034
  Nucleosynthesis of Galactic ^{26}Al in Classical Novae
  PAC 35 evaluation: approved; 77 hours of beam time allotted
  Status: completed

- Co-spokesperson
  Argonne National Laboratory, Argonne Tandem Linac Accelerator System (ATLAS), Experiment 1259
  Precise mass measurements of ^{32}Cl and ^{31}S
  PAC evaluation: Priority II (should be granted beam time if at all possible)
  Status: completed

- Co-spokesperson
  Tri-University Meson Facility (TRIUMF), Experiment S1108
  The $^{30}P(p,\gamma)^{31}S$ Reaction Rate in Classical Novae
  EEC evaluation: approved with high priority
  Status: awaiting ^{30}P beam development

Professional Affiliations and Services

- Chair, organizing committee, *Twentieth Exotic Beam Summer School*, Facility for Rare Isotope Beams, East Lansing, MI (upcoming, July 2023)

- Faculty Senator, elected FRIB Laboratory representative, Academic Governance, Michigan State University (two terms, May 2020 - present)

- Board of Directors, *Exotic Beam Summer School* (Aug 2017 - present)

- Advisory Committee, *Nuclear Science Summer School (NS^3)*, East Lansing, MI (Oct 2015 - present)

- Chair, *Graduate Recruiting Committee*, Facility for Rare Isotope Beams, East Lansing, MI (2022/23)

- *Graduate Recruiting Committee*, MSU Department of Physics and Astronomy, East Lansing, MI (2022/23)

- DUNE Search Committee, MSU Department of Physics and Astronomy (2022)

- Administrator, *Travel Grant Award Program*, American Physical Society, Division of Nuclear Physics (Nov 2017 - Mar 2022)
- Chair, *PTRC Subcommittee for promotion to Associate Professor*, MSU Department of Physics and Astronomy, East Lansing, MI (2021/22)
- *RPC Subcommittee for a Position as Research Professor*, Facility for Rare Isotope Beams, East Lansing, MI (2021/22)
- *Graduate Recruiting Committee*, Facility for Rare Isotope Beams, East Lansing, MI (2021/22)
- *Graduate Recruiting Committee*, MSU Department of Physics and Astronomy, East Lansing, MI (2021/22)
- *Graduate Subject Exam Committee: Classical Mechanics*, MSU Department of Physics and Astronomy, East Lansing, MI (2021/22)
- Alternate, *Advisory Committee to the Department Chair (ADCOM)*, Department of Physics and Astronomy, Michigan State University, East Lansing, MI (2021/22)
- Chair, organizing committee, *Nuclear Science Summer School (NS^3)*, online (2021)
- Founding chair, *NSCL/FRIB Summer Virtual Seminar*, NSCL/FRIB (Summer 2020, Summer 2021)
- Chair, Seminar Committee, NSCL/FRIB (Jul 2019 - Jul 2022)
- Member, RPC Subcommittee for promotion to Associate Professor, NSCL/FRIB (2020/21)
- Member, PTRC Subcommittee for promotion to Associate Professor, MSU Department of Physics and Astronomy (2020/21)
- NSO Freshman Mentor, MSU Department of Physics and Astronomy (2020/21)
- Zoom Host, American Physical Society, Division of Nuclear Physics, Virtual Meeting (Oct 2020)
- Member, SECAR Research Associate search committee, NSCL/FRIB (Summer 2020)
- Cross Disciplinary Specialist, *FRIB Promotion and Reappointment Committee for Continuing Appointment Engineers*, Michigan State University, East Lansing, MI (2020)
- Affirmative Action Advocate, IceCube Search Committee, MSU Department of Physics and Astronomy (2019/20)
- Chair, *Sensitive Reaction Studies for Nuclear Astrophysics*, Invited Session, APS April Meeting, Washington, DC (Apr 2020)
- Co-organizer, *BSM physics in nuclear and neutron beta decay*, Invited Session, APS April Meeting, Washington, DC (Apr 2020)
- Co-organizer, *NICER and the mass-radius relation of neutron stars*, DNP-DGRAV Joint Invited Session, APS April Meeting, Washington, DC (Apr 2020)

- Co-organizer, *Proton-rich nucleosynthesis*, Mini Symposium, APS April Meeting, Washington, DC (Apr 2020)
- Co-organizer, *Time Reversal Violation Searches*, Mini Symposium, APS April Meeting, Washington, DC (Apr 2020)
- Host, Special Seminar by Trudy Kortes from NASA *Hard Realities You'll Face in Industry and the Strategies You Need to Deal with Them* sponsored by SWISE and JINA-CEE, East Lansing, MI (Feb 2020)
- Session chair, *American Physical Society, Division of Nuclear Physics Fall Meeting*, "Nuclear Astrophysics: Stellar and Big Bang Nucleosynthesis" (Oct 2019, Crystal City, VA)
- Session chair, *American Physical Society April Meeting*, "Neutron Lifetime Anomaly: Possible Explanations" (Apr 2019, Denver, CO)
- Strategic Plan Writing Committee, Department of Physics and Astronomy, Michigan State University (Mar 2019-)
- Peer Reviewer, *Canadian Natural Science and Engineering Research Council (NSERC)* (2019-)
- Peer Reviewer, *French National Research Agency (ANR)* (2018-)
- Peer Reviewer, *U.S. Department of Energy (DOE)* (2017-)
- Peer Reviewer, *Canada Foundation for Innovation (CFI)* (2016-)
- Peer Reviewer, *Indo-U.S. Science and Technology Forum (IUSSTF)* (2016-)
- Peer Reviewer, *U.S. National Science Foundation (NSF)* (2016-)
- *SECAR Collaboration Council* (May 2015-2020)
- Guest Editor, *European Physical Journal Plus* (2014-)
- Peer Reviewer, *European Physical Journal A* (2014-)
- Senior Investigator, *Joint Institute for Nuclear Astrophysics*, Michigan State University, East Lansing, MI (Aug 2011-)
- Peer Reviewer, *Nuclear Instruments and Methods in Physics Research B* (2011-)
- Peer Reviewer, *Nuclear Data Sheets* (2010-)
- Peer Reviewer, *Physical Review Letters* (2010-)
- Peer Reviewer, *Physical Review C* (2009-)
- Member, *American Association for the Advancement of Science* (2007-)
- Member, *Canadian Association of Physicists* (2007-)
  - *Division of Nuclear Physics*
  - *Division of Particle Physics*

  - *Division of Atmospheric and Space Physics*

- Member, *American Physical Society* (2007-)
- Member, *Program Committee*, American Physical Society, Division of Nuclear Physics (Jan 2018-Jan 2020)
- *2nd-Year Graduate Astronomy Project Committee* of Adam Kawash, Department of Physics and Astronomy, Michigan State University, East Lansing, MI (Nov 2019)
- Local Organizing Committee, *6th International Conference on Proton Emitting Nuclei (PROCON2019)*, East Lansing, MI (June 3-7, 2019)
- Co-organizer, *Probing Neutron Stars through Neutron Star Mergers*, DNP-DAP Joint Invited Session, APS April Meeting, Denver, CO (Apr 2019)
- Co-organizer, *Radionuclide Astronomy*, DNP-DAP Joint Invited Session, APS April Meeting, Denver, CO (Apr 2019)
- Co-organizer, *Neutron Lifetime Anomaly*, Mini Symposium, APS April Meeting, Denver, CO (Apr 2019)
- Graduate Program Committee, MSU Department of Physics and Astronomy (Sep 2018 - Aug 2019)
- Elected Member, *Advisory Committee to the Department Chair (ADCOM)*, Department of Physics and Astronomy, Michigan State University, East Lansing, MI (Chair Nov 2018 - May 2019, Vice Chair May 2018 - Oct 2018, Secretary May 2017 - May 2018)
- Member, *NSCL/FRIB Open House Committee* (East Lansing, MI, USA; 2018)
- Cross Disciplinary Specialist, *FRIB Promotion and Reappointment Committee for Continuing Appointment Engineers*, Michigan State University, East Lansing, MI (2018)
- *Beam Physicist Search Committee*, National Superconducting Cyclotron Laboratory, East Lansing, MI (Dec 2017-Aug 2018)
- Chair, *Graduate Student Recruiting Committee*, National Superconducting Cyclotron Laboratory, East Lansing, MI (Aug 2017-Jul 2018)
- *Graduate Program, Recruiting, and Admissions Committee*, Department of Physics and Astronomy, Michigan State University, East Lansing, MI (Aug 2017-Jul 2018)
- Organizer, *r-process in the era of neutron star merger observations*, satellite workshop to the 4th Joint Meeting of the APS Division of Nuclear Physics and the Physical Society of Japan, Waikoloa, HI (Oct 2018)
- *Women and Minorities Lecture Series Committee*, National Superconducting Cyclotron Laboratory, East Lansing, MI (Jul 2017-Jun 2018)
- *Seminar Committee*, National Superconducting Cyclotron Laboratory, East Lansing, MI (Jul 2017-Jun 2018)
- Speaker, *U.S. National Nuclear Physics Summer School* (3 lectures on Experimental Aspects of Nuclear Astrophysics), Yale University, New Haven, CT (Jun 2018)

- Judge, *University Undergraduate Research and Arts Forum (UURAF)*, Michigan State University (Apr 2018)
- *Committee for Promotion to Associate Professor with Tenure*, Department of Physics and Astronomy, Michigan State University, East Lansing, MI (May 2017-April 2018)
- *Colloquium Committee*, Department of Physics and Astronomy, Michigan State University, East Lansing, MI (Aug 2016-April 2018)
- Panelist, *College of Natural Science Workshop on Reappointment, Promotion, and Tenure*, Michigan State University, East Lansing, MI (Mar 2018)
- *CNS Graduate Recruiting Fellowship Committee*, College of Natural Science, Michigan State University (Jan 2018)
- Chair, *Outreach Committee*, National Superconducting Cyclotron Laboratory, East Lansing, MI (Jul 2013-Jul 2017)
- *2nd-Year Graduate Astronomy Project Committee* of Daniel Huizenga, Department of Physics and Astronomy, Michigan State University, East Lansing, MI (Jan 2017)
- *Graduate Program Committee*, Department of Physics and Astronomy, Michigan State University, East Lansing, MI (Aug 2015- Jul 2016)
- *Graduate Recruiting Committee*, National Superconducting Cyclotron Laboratory, East Lansing, MI (Aug 2015-Jul 2016)
- Consultant, *Nuclear Data Sheets*, with Jun Chen regarding new presentation format (Apr 2016)
- Session chair, *JINA-CEE Frontiers*, University of Notre Dame, South Bend, IN (Mar 2016)
- *FRIB Experimental Faculty Search Committee*, Facility for Rare Isotope Beams, East Lansing, MI (Nov 2015-Mar 2016)
- Chair, *Seminar Committee*, National Superconducting Cyclotron Laboratory, East Lansing, MI (Jul 2014-Jul 2015)
- Chair, *Electronics Committee*, National Superconducting Cyclotron Laboratory, East Lansing, MI (Jul 2012-Aug 2014)
- *2nd-Year Graduate Astronomy Project Committee* of Tom Finzell, Department of Physics and Astronomy, Michigan State University, East Lansing, MI (Jul 2014)
- *High Energy Physics Experimental Faculty Search Committee*, Department of Physics and Astronomy, Michigan State University, East Lansing, MI (Aug 2013-May 2014)
- Founding member, *Accreting White Dwarfs Club*, Michigan State University, East Lansing, MI (Apr 2013-2014)
- Contributor, *Development of new MSU graduate course PHY 950: Statistics and Data Analysis Methods* (2014)
- *Undergraduate Program Committee*, Department of Physics and Astronomy, Michigan State University, East Lansing, MI (Aug 2012 - Aug 2013)

- Leader, *Radiation-Safety Plan for New ReA3 Experimental Hall* (Jun 2012 - Mar 2013)
- Session chair, *Center for Nuclear Astrophysics Workshop*, Shanghai Jiao Tong University, Shanghai, China (May 2013)
- Session chair, *American Physical Society April Meeting*, "Session C3: Invited Session: Novel Detection in Low-Energy Nuclear Physics," (Apr 2013)
- Session chair, *Frontiers 2012: A Conference on Nuclear Astrophysics* (2012)
- Member, *The New York Academy of Sciences* (2007-2008)

Outreach

- Tour Guide, *FRIB Ribbon Cutting*, May 2022
- Volunteer, *FRIB Countdown Open House*, Apr 2022
- *Experimental Nuclear Astrophysics with Rare Isotopes*, invited presentation (for undergraduates students), Nuclear Astrophysics Lecture Series at MSI Program, online (online, Oct 2021)
- Author, *NSCLs GADGET produces first science*, NSCL webpage and NSCL Greensheet, May 2020
- Author, *Chris Wrede: Nuclear Physics at MSU*, MSU Today, 360 Perspective Voices and Viewpoints, Feb 2020
- Interviewee, *MSU "Environmental Journalism" seminar* (East Lansing, MI, USA; Dec. 2019)
- Author, *Rare Isotopes in Space*, NSCL Greensheet, Nov 2019
- Co-author, *Experiment of the Week*, NSCL Greensheet, Jul 2019
- Co-author, *There are too Many Doublets*, NSCL Greensheet, Feb 2019
- Co-author, *Experiment of the Week*, NSCL Greensheet, Nov 2018
- Co-author, *How does the Neutron Decay?*, NSCL Greensheet, Oct 2018
- Member, FRIB/NSCL Open House Committee (East Lansing, MI, May 2018 - Aug 2018)
- Co-author, *Experiment of the Week*, NSCL Greensheet, May 2018
- Co-author, *April Showers Bring May Flowers*, NSCL Greensheet, Apr 2018
- Chair, *NSCL/FRIB Outreach Committee* (East Lansing, MI, USA; Jul 2013 - Jul 2017)
  - Co-developed online educational game *Isotopolis*
  - Co-initiator of *Impression 5* science museum interactive exhibit *Smash*
  - Led development of new set of activities for *Physics of Atomic Nuclei* school for high school students and teachers
  - Co-chair of 2016 NSCL/FRIB *Rare Access* Open House committee

- Co-author, *Nuclear Bursts from Neutron Stars*, NSCL Greensheet, Jun 2017
- Speaker, *Nuclear Science Summer School: NS^3*, for undergraduate students (East Lansing, MI, May 2018)
- Speaker, *Nuclear Science Summer School: NS^3*, for undergraduate students (East Lansing, MI, May 2017)
- Co-author, *Proton Detector Construction and First Tests*, NSCL Greensheet, Mar 2017
- Speaker *Pre-Solar Grains*, invited contribution to nationally syndicated radio program, The Academic Minute (2016)
- Co-founder, *Project to Develop NSCL/FRIB Exhibit at Impression 5 Science Center* (East Lansing, MI, 2016)
- Interviewee, *Collingwood School* student science project (Sep 2016)
- Speaker, *Physics of Atomic Nuclei 2016*, for high school students (East Lansing, MI, Aug 2016)
- Speaker, *Physics of Atomic Nuclei 2016*, for high school teachers (East Lansing, MI, Jul 2016)
- Co-author, *Mechanical Design of Proton Detector*, NSCL Greensheet, Jul 2016
- Co-chair, FRIB/NSCL Open House Committee (East Lansing, MI, Apr 2016 - Aug 2016)
- Speaker, *Nuclear Astrophysics*, for Kiwanis Club (East Lansing, MI, May 2016)
- Co-author, *A Speed Trap for Nuclei*, NSCL Greensheet, Jan 2016
- Advisory Committee, *Nuclear Science Summer School (NS3)*, East Lansing, MI (Oct 2015-)
- Co-author, *A New Detector for Thermonuclear Reaction Rates*, NSCL Greensheet, Oct 2015
- Speaker, *Physics of Atomic Nuclei 2015*, for high school students (East Lansing, MI, Jul 2015)
- Speaker, *Physics of Atomic Nuclei 2015*, for high school teachers (East Lansing, MI, Jul 2015)
- Chair, Outreach Committee, *National Superconducting Cyclotron Laboratory* (East Lansing, MI, USA; Jul 2013 - Jul 2017)
- Co-author, *Origin of Stardust*, NSCL Greensheet, May 2015
- Speaker, *Physics of Atomic Nuclei 2014*, for high school students (East Lansing, MI, Aug 2014)
- Speaker, *Physics of Atomic Nuclei 2014*, for high school teachers (East Lansing, MI, Jul 2014)
- Co-author, *From Protons to the Stars*, NSCL Greensheet, Jun 2014

- Interviewee, *MSU's New FRIB Project Getting National Attention* television news story, WLNS-6 News, MI, USA (Mar 2014)
- Discussion leader and interviewee, *MSU "Science Journalism" class (JRN 472/872) visit to NSCL* (East Lansing, MI, USA; Feb. 2014)
- Event Supervisor, *MI Science Olympiad, State Tournament* (East Lansing, MI, USA; Apr 2013)
- Instructor, *MI Science Olympiad, Coach's Workshop* (East Lansing, MI, USA; Dec 2012)
- Co-author, *Experiment of the Week*, NSCL Greensheet, Sep 2012
- Event Supervisor, *MI Science Olympiad, State Tournament* (East Lansing, MI, USA; Apr 2012)
- Volunteer, *MI Science Olympiad, Regional Tournament* (Lansing, MI, USA; Feb 2012)
- Tour Guide, *Yale Physics Olympics: Wright Nuclear Structure Laboratory* (New Haven, CT, USA; Oct 2006)
- Instructor, *CERN Outreach Event: In Affiliation with the International Symposium "Nuclei in the Cosmos - IX"* (Geneva, Switzerland; Jun 2006)

Patents

- ^{114m}*In low energy electron source*, U.S. Patent Application No. 61/441,913, unpublished (filing date Feb. 1, 2011) (Christopher Wrede *et al.*, applicants)

Invited Conference Presentations

- *New Results in Nuclear Astrophysics from Radioactive Beam Facilities*, 14th International Conference on Nucleus-Nucleus Collisions (NN2021), Whistler, BC, Canada (Jul 2021, postponed to Jul 2024)
- *Radioactive Beams for Novae and X-ray Bursts (MSU and TRIUMF Results)*, Gordon Conference on Nuclear Chemistry, Colby-Sawyer College, New London, NH, (Jun 2021, postponed to Jun 2023)
- *RIB studies for explosive scenarios and future opportunities at FRIB*, International Nuclear Physics Conference (INPC), Glasgow, United Kingdom (Aug 2019)
- *Nuclear Astrophysics at FRIB: Present Status and Future Opportunities*, The 15th International Symposium on Origin of Matter and Evolution of Galaxies (OMEG15), Kyoto, Japan (Jul 2019)
- *Studies of explosive nucleosynthesis using β^+ decay experiments*, International Conference of Proton Emitting Nuclei 2019 (PROCON2019), Michigan State University, East Lansing, MI (Jun 2019)
- *Methods to constrain thermonuclear rates (by and for John D'Auria)*, Canadian Association of Physicists (CAP) Congress, Simon Fraser University, Burnaby, BC, Canada (Jun 2019)

- *Nuclear structure and reactions at NSCL and FRIB through the lens of astrophysics* (5 lectures), Hampton University Graduate Studies Program (HUGS), Jefferson Lab, Newport News, VA (May 2019)
- *Experimental Aspects of Nuclear Astrophysics* (3 lectures), U.S. National Nuclear Physics Summer School, Yale University, New Haven, CT (Jun 2018)
- *Studies of proton-rich nuclei at FRIB*, FRIB Decay Station Workshop, National Superconducting Cyclotron Laboratory, East Lansing, MI (Jan 2018)
- *Beta decays of the neutron deficient chlorine isotopes*, Cyclotron Institute 50 Years of Beam Symposium, Texas A and M University, College Station, TX, USA (Nov 2017)
- *Beta Decay Near the Proton Drip Line*, Low Energy Nuclear Physics Community Meeting, Argonne National Laboratory, Lemont, IL, USA (Aug 2017)
- *Overview of Experimental Aspects of Astrophysical Nucleosynthesis*, 2017 Workshop on Microphysics in Computational Relativistic Astrophysics (MICRA2017), East Lansing, MI (Jul 2017)
- *Beta decay spectroscopy studies of novae and x-ray bursts*, Nuclear Physics in Astrophysics VIII, Catania, Italy (Jun 2017)
- *Rare Isotopes: the DNA of Stellar Explosions*, invited presentation, 2017 Meeting of the American Association for the Advancement of Science (Feb 2017)
- *Thermonuclear runaways investigated using drip line beta decays*, 2016 Meeting of the American Physical Society, Division of Nuclear Physics, Vancouver, BC, Canada (Oct 2016)
- *Decay Measurements at FRIB*, Low-Energy Community Meeting, Si Array Working Group, University of Notre Dame, South Bend, IN (Aug 2016)
- *Beta Delayed Proton Emission Detector*, Low-Energy Community Meeting, TPC Working Group, University of Notre Dame, South Bend, IN (Aug 2016)
- *Nuclear astrophysics and fundamental symmetries using the beta delayed gamma decay of proton rich nuclides*, FRIB Decay Station Collaboration Meeting, Oak Ridge National Laboratory, Oak Ridge, TN (Jan 2016)
- *A gas-filled detector of beta delayed low-energy charged particle emissions for astrophysical applications*, FRIB Decay Station Collaboration Meeting, Oak Ridge National Laboratory, Oak Ridge, TN (Jan 2016)
- *Explosive nucleosynthesis on accreting compact stars*, 12th Conference on the Intersections of Particle and Nuclear Physics, Vail, CO, USA (May 2015)
- *The Facility for Rare Isotope Beams*, The 15th International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics, Dresden, Germany (Aug 2014)
- *Nuclear reactions in Novae*, Joint DNP Town Meetings on Nuclear Structure and Nuclear Astrophysics, Texas A & M University, College Station, TX, USA (Aug 2014)
- *Introduction to Classical Novae*, Classical Novae in the Cosmos workshop, Debrecen, Hungary (Jul 2014)

- *Overview of the $^{30}P(p,\gamma)^{31}S$ reaction in novae*, Classical Novae in the Cosmos workshop, Debrecen, Hungary (Jul 2014)
- *Nuclear Astrophysics with FRIB*, Inauguration Symposium of the Center for Nuclear Astrophysics, Shanghai Jiao Tong University, Shanghai, China (May 2013)
- *Nuclear astrophysics at NSCL and FRIB*, Canadian Association of Physicists Congress, University of Calgary, Calgary, AB, Canada (Jun 2012)
- *Production of the γ-ray emitters ^{22}Na and ^{26}Al in classical novae*, American Physical Society April Meeting, Anaheim, CA, USA (Apr 2011)
- *Absolute resonance strength measurements of the $^{22}Na(p,\gamma)^{23}Mg$ reaction*, Canadian Workshop on the Nuclear Astrophysics of Stars, TRIUMF, Vancouver, BC, Canada (Dec 2010)
- *Mass measurements of T=2 nuclides*, TITAN collaboration meeting, TRIUMF, Vancouver, BC, Canada (May 2010)
- *Status of the Ultra Cold Neutron Beta Asymmetry (UCNA) experiment*, Los Alamos Neutron Science Center (LANSCE) users group meeting, Santa Fe, NM, USA (Sep 2009)

Invited Colloquiums and Seminars

- *Experimental Nuclear Astrophysics: there's a GADGET for that*, Colloquium, Michigan State University, Department of Physics and Astronomy, East Lansing, MI, USA (online, Nov 2020)
- *Charged-particle reactions in exploding stars via beta decay*, Nuclear Physics Seminar, Oak Ridge National Laboratory, Oak Ridge, TN, USA (Nov 2019)
- *Resonant thermonuclear reaction rates from beta decay experiments*, University of Tennessee, Nuclear Physics Seminar, Knoxville, TN, USA (Feb 2019)
- *Rare isotope probes of thermonuclear astrophysical explosions*, Michigan State University, Department of Physics and Astronomy, Colloquium, East Lansing, MI, USA (Oct 2016)
- *Laboratory experiments to probe thermonuclear astrophysical explosions*, McMaster University, Department of Physics, Colloquium, Hamilton, ON, Canada (Sep 2016)
- *Drip line beta decays to probe thermonuclear astrophysical explosions*, University of Notre Dame, Department of Physics, Colloquium, South Bend, IN, USA (Jan 2015)
- *Nuclear Astrophysics and Fundamental Symmetries via Beta Decay at NSCL*, Colloquium, TRIUMF, Vancouver, BC, Canada (Dec 2014)
- *Beta decay as a probe of explosive nucleosynthesis in classical novae*, invited presentation, 23rd Conference on Application of Accelerators and Research in Industry, San Antonio, TX, USA (May 2014)
- *Nucleosynthesis in classical novae*, Colloquium, Department of Physics, The George Washington University, Washington DC, DC, USA (Mar 2011)

- *Nucleosynthesis in classical novae*, Seminar, Michigan State University, East Lansing, MI, USA (Mar 2011)
- *Thermonuclear reaction rates and nova nucleosynthesis*, Seminar, Department of Physics and Astronomy, Rutgers University, Nuclear Physics Piscataway, NJ, USA (Feb 2011)
- *Nucleosynthesis in classical novae*, Colloquium, Department of Physics and Astronomy, Louisiana State University, Baton Rouge, LA, USA (Jan 2011)
- *Thermonuclear reaction rates and nova observables*, Lunch Research Discussion, Joint Institute for Nuclear Astrophysics, Michigan State University, East Lansing, MI, USA (Nov 2010)
- *Precise nuclear masses via magnetic spectroscopy*, Seminar, Technische Universität München, Garching, Germany (Nov 2009)
- *Nuclear energy levels of* ^{31}S *and astrophysical implications*, Seminar, Center for Experimental Nuclear Physics and Astrophysics, University of Washington, Seattle, WA, USA (Nov 2007)
- *New* $^{30}P(p,\gamma)^{31}S$ *resonances and oxygen-neon nova nucleosynthesis*, Seminar, SNOLAB, Sudbury, ON, Canada (Aug 2007)

Other Presentations

- *Nuclear Astrophysics*, invited presentation (for high-school students), Physics of Atomic Nuclei 2022, East Lansing, MI (Jul 2022)
- *Experimental Nuclear Astrophysics*, invited presentation (for undergraduate students), Nuclear Science Summer School, East Lansing, MI (May 2022)
- *Experimental Nuclear Astrophysics with Rare Isotopes*, invited presentation (for undergraduates students), Nuclear Astrophysics Lecture Series at MSI Program, online (online, Oct. 2021)
- *Experimental Nuclear Astrophysics*, invited presentation (for undergraduate students), Nuclear Science Summer School, East Lansing, MI (May 2021)
- *CNO Cycle*, substitute lecture, PHY983 (Nuclear Astrophysics), Michigan State University, East Lansing, MI (online, Feb 2021)
- *Particle X-ray Coincidence Technique at FRIB*, Low Energy Community Meeting, FRIB Decay Station Working Group (online, Aug 2020)
- *GADGET II: a TPC for Decay Spectroscopy at FRIB*, Low Energy Community Meeting, TPC Working Group (online, Aug 2020)
- *Experimental Nuclear Astrophysics*, invited presentation (for undergraduate students), Nuclear Science Summer School, East Lansing, MI (May 2020)
- *First measurement with GADGET:* ^{23}Al β *decay and* ^{22}Na *production in novae*, contributed presentation, Virtual April 2020 Meeting of the American Physical Society, (online, Apr 2020)

- *GADGET: a Gaseous Detector with Germanium Tagging*, contributed presentation, Fall 2019 Meeting of the American Physical Society's Division of Nuclear Physics, Denver, CO, USA (Oct 2019)
- *Shell-model studies of the astrophysical mirror rp-reactions* $^{34}S(p,\gamma)^{35}Cl$ *and* $^{34g,m}Cl(p,\gamma)^{35}Ar$, International Nuclear Physics Conference (INPC), Glasgow, United Kingdom (on behalf of Werner Richter, Aug 2019)
- *Laetitia Canete Dissertation: High Precision Mass Measurements for Nuclear Astrophysics*, University of Jyvaskyla, Opponent Statement, Jyvaskyla, Finland (Mar 2019)
- *World Class Research Opportunities Across the Courtyard at NSCL and FRIB*, Society of Physics Students meeting, Michigan State University, East Lansing, MI, USA (Sep 2017)
- *Nuclear Astrophysics*, invited presentation (for high-school students), Physics of Atomic Nuclei 2017, East Lansing, MI (Jul 2017)
- *Experimental Nuclear Astrophysics*, invited presentation (for undergraduate students), Nuclear Science Summer School, East Lansing, MI (May 2017)
- *Thermonuclear Runaways Investigated Using Beta Decay Experiments*, selected contributed presentation, JINA-CEE Frontiers meeting, Lansing, MI (Feb 2017)
- *Nuclear Astrophysics*, invited presentation (for high-school students), Physics of Atomic Nuclei 2016, East Lansing, MI (Aug 2016)
- *Nuclear Astrophysics*, invited presentation (for high-school teachers), Physics of Atomic Nuclei 2016, East Lansing, MI (Jul 2016)
- *Nuclear Astrophysics*, invited presentation (for high-school students), Physics of Atomic Nuclei 2015, East Lansing, MI (Jul 2015)
- *Nuclear Astrophysics*, invited presentation (for high-school teachers), Physics of Atomic Nuclei 2015, East Lansing, MI (Jul 2015)
- *Nuclear Astrophysics*, invited presentation (for high-school students), Physics of Atomic Nuclei 2014, East Lansing, MI (Aug 2014)
- *Nuclear Astrophysics*, invited presentation (for high-school teachers), Physics of Atomic Nuclei 2014, East Lansing, MI (Jul 2014)
- *Re-examination of Yale* $^{31}P(^3He,t)^{31}S$ *spectra in light of new data and relation to the* $^{30}P(p,\gamma)^{31}S$ *reaction in novae*, contributed presentation, Classical Novae in the Cosmos workshop, Debrecen, Hungary (Jul 2014)
- *Beta delayed gamma decay measurements to probe thermonuclear astrophysical explosions*, selected contributed presentation, Nuclei in the Cosmos XIII symposium, Debrecen, Hungary (Jul 2014)
- *Nuclear physics of classical novae*, MSU Accreting White Dwarfs Club, discussion leader, Michigan State University, East Lansing, MI, USA (Jun 2014)
- *Double beta decay nuclear structure via electron capture on* ^{116}In, contributed presentation, April 2013 Meeting of the American Physical Society, Denver, CO, USA (Apr 2013)

- *Experiments to predict the composition of nova shrapnel*, NSCL Staff Information Talk, invited presentation, National Superconducting Cyclotron Laboratory, Michigan State University, East Lansing, MI, USA (Feb 2013)
- *Nova nucleosynthesis via beta delayed gamma decay at NSCL*, Frontiers 2012: Conference on Nuclear Astrophysics, contributed presentation, Michigan State University, East Lansing, MI, USA (Oct 2012)
- *Experiments to Understand Novae*, Low Energy Nuclear Physics Community Meeting, Nuclear Astrophysics Breakout Session, contributed presentation, Argonne National Laboratory, Argonne, IL, USA (Aug 2012)
- *β decay of ^{26}P to determine the $^{25}Al(p,\gamma)^{26}Si$ reaction rate in novae*, poster presentation, 12th International Symposium on Nuclei in the Cosmos, Cairns, Queensland, Australia (Aug 2012)
- *Electron capture on ^{116}In and double beta decay*, Research Discussion, National Superconducting Cyclotron Laboratory, East Lansing, MI, USA (Nov 2011)
- *Partitioning the double beta decay of ^{116}Cd: electron capture on ^{116}In*, contributed presentation, Meeting of the American Physical Society Division of Nuclear Physics, East Lansing, MI, USA (Oct 2011)
- *Production of the γ-ray emitters ^{22}Na and ^{26}Al in classical novae*, Lunch Talk, Large Synoptic Survey Telescope group, University of Washington, Seattle, WA, USA (Jul 2011)
- *Astrophysics and particle physics with rare isotopes*, Research Discussion, National Superconducting Cyclotron Laboratory, Michigan State University, East Lansing, MI, USA (Mar 2011)
- *Masses and excitation energies of ^{20}Na, ^{24}Al, ^{28}P, ^{32}Cl, and ^{36}K: precision measurements*, Monday Meeting Talk, Center for Experimental Nuclear Physics and Astrophysics, University of Washington, Seattle, WA, USA (Oct 2010)
- *Properties of ^{20}Na, ^{24}Al, ^{28}P, ^{32}Cl, and ^{36}K for the rp process*, contributed presentation, 11th International Symposium on Nuclei in the Cosmos, Heidelberg, Germany (Jul 2010)
- *Mass of the lowest $T = 2$ level in ^{32}Cl*, contributed presentation, Third Joint Meeting of the American Physical Society's Division of Nuclear Physics and the Physical Society of Japan, presentation, Waikoloa, HI, USA (Oct 2009)
- *Mass of the lowest $T = 2$ level in ^{32}Cl*, Monday Meeting Talk, Center for Experimental Nuclear Physics and Astrophysics, University of Washington, Seattle, WA, USA (Aug 2009)
- *Beta decay of ^{32}Ar for fundamental tests*, Argonne-ATLAS users meeting, presentation, Argonne, IL, USA (Aug 2009)
- *Reconciliation of world data on the thermonuclear $^{25}Al(p,\gamma)^{26}Si$ reaction rate in classical novae*, Monday Meeting Talk, Center for Experimental Nuclear Physics and Astrophysics, University of Washington, Seattle, WA, USA (Oct 2008)
- *First measurement of the $^{31}P(^3He,t)^{31}S$ reaction: a study of the thermonuclear $^{30}P(p,\gamma)^{31}S$ reaction rate*, contributed presentation, 10th International Symposium on Nuclei in the Cosmos, Mackinac Island, MI, USA (Jul 2008)

- *Measurement of ^{23}Mg+p resonance energies*, poster, 10th International Symposium on Nuclei in the Cosmos, Mackinac Island, MI, USA (Jul 2008)
- *Nuclear energy levels of ^{31}S and astrophysical implications*, Ph.D. thesis defense, Yale University, New Haven, CT, USA (Mar 2008)
- *Studying the $^{30}P(p,\gamma)^{31}S$ reaction using the $^{31}P(^3He,t)^{31}S^*(p)^{30}P$ reaction*, contributed presentation, American Physical Society April Meeting, Jacksonville, FL, USA (Apr 2007)
- *^{60}Fe anomaly in a deep sea manganese crust and implications for a nearby supernova source*, field oral exam presentation, Yale University, New Haven, CT, USA (2006)
- *$^{26}Al^m$ + p resonances in ^{27}Si*, contributed presentation, The 3rd European Summer School for Nuclear Astrophysics, Santa Tecla, Italy (2005)
- *A Double Sided Silicon Strip Detector as an End Detector for the DRAGON Recoil Mass Separator*, M.Sc. thesis defense, Simon Fraser University, Burnaby, BC, Canada (2003)
- *DRAGON's Focal Plane Detection Systems*, contributed presentation, Western Regional Nuclear and Particle Physics Conference, Lake Louise, AB, Canada (2003)
- *Exotic Compact Stars*, Physics 505 presentation and review paper, University of British Columbia, Vancouver, BC, Canada (2002)
- *A Double Sided Silicon Strip Detector as an End Detector for DRAGON*, poster, Electromagnetic Isotope Separator (EMIS-14) conference, Victoria, BC, Canada (2002)
- *Dark Matter Detection*, Physics 506 presentation, University of British Columbia, Vancouver, BC, Canada (2002)
- *Ultra High Energy Cosmic Rays*, Physics 801 presentation, Simon Fraser University, Burnaby, BC, Canada (2001)
- *Liquid Mirror Telescopes*, Physics 801 presentation, Simon Fraser University, Burnaby, BC, Canada (2001)

Editorials

- C. Wrede *Focus Point on evaluation of the ^{30}P proton capture reaction rate in classical novae*, Eur. Phys. J. Plus 132, 394 (2017)

Conference Proceedings

- Ruchi Mahajan, A. Adams, J. Allmond, H. Alvarez Pol, E. Argo, Y. Ayyad, D. Bardayan, D. Bazin, T. Budner, A. Chen, K. Chipps, B. Davids, J. Dopfer, M. Friedman, H. Fynbo, R. Grzywacz, J. Jose, J. Liang, S. Pain, D. Perez-Loureiro, E. Pollacco, A. Psaltis, S. Ravishankar, A. Rogers, L. Schaedig, L. J. Sun, J. Surbrook, T. Wheeler, L. Weghorn, and C. Wrede, *Measuring the $^{15}O(\alpha,\gamma)^{19}Ne$ Reaction in Type I X-ray Bursts using the GADGET II TPC: Software*, Eur. Phys. J. Web Conf. 260, 11034 (2022)

- Tyler Wheeler, A. Adams, J. Allmond, H. Alvarez Pol, E. Argo, Y. Ayyad, D. Bardayan, D. Bazin, T. Budner, A. Chen, K. Chipps, B. Davids, J. Dopfer, M. Friedman, H. Fynbo, R. Grzywacz, J. Jose, J. Liang, R. Mahajan, S. Pain, D. Perez-Loureiro, E. Pollacco, A. Psaltis, S. Ravishankar, A. Rogers, L. Schaedig, L. J. Sun, J. Surbrook, T. Wheeler, L. Weghorn, and C. Wrede, *Measuring the $^{15}O(\alpha,\gamma)^{19}Ne$ Reaction in Type I X-ray Bursts using the GADGET II TPC: Software*, Eur. Phys. J. Web Conf. 260, 11046 (2022)

- C. Wrede, *RIB studies for explosive scenarios and future opportunities at FRIB*, Proceedings of the International Conference in Nuclear Physics 2019, Journal of Physics: Conference Series 1643, 012068 (2020)

- J. Liang, A. A. Chen, M. Anger, S. Bishop, T. Faestermann, C. Fry, R. Hertenberger, A. Psaltis, D. Seiler, P. Tiwari, H.-F. Wirth, C. Wrede, *Spectroscopic Study of ^{39}Ca for Endpoint Nucleosynthesis in Classical Novae*, Proceedings of Nuclei in the Cosmos XV, Springer Proceedings in Physics 219, 397 (2019)

- J. Liang, A. A. Chen, M. Anger, S. Bishop, T. Faestermann, C. Fry, R. Hertenberger, A. Psaltis, D. Seiler, P. Tiwari, H.-F. Wirth, C. Wrede, , *Spectroscopic Study of 39Ca for Endpoint Nucleosynthesis in Classical Novae*, Journal of Physics: Conference Series 1668, 012025 (2020)

- W. Richter *et al.*, *Shell-model studies of the astrophysical mirror rp-reactions $^{34}S(p,\gamma)^{35}Cl$ and $^{34g,m}Cl(p,\gamma)^{35}Ar$*, Proceedings of the International Nuclear Physics Conference 2019, submitted to J. Phys. G: Conference Series

- X. Sun *et al.*, *Search for neutron dark decay: $n \to \chi + e^+e^-$*, EPJ Web of Conferences, 219, 05008 (2019)

- Frank Timmes *et al.*, *Catching Element Formation In The Act ; The Case for a New MeV Gamma-Ray Mission: Radionuclide Astronomy in the 2020s*, Astro2020: Decadal Survey on Astronomy and Astrophysics, science white papers, Bulletin of the American Astronomical Society, Vol. 51, Issue 3, id. 2 (2019); arXiv:1902.02915

- B. Plaster *et al.*, *Final results for the neutron β-asymmetry parameter A0 from the UCNA experiment*, EPJ Web of Conferences, 219, 04004 (2019)

- K. Schmidt *et al.*, *X-ray Burst Studies with the JENSA Gas Target*, Proceedings of the 14th International Symposium on Nuclei in the Cosmos, JPS Conf. Proc. 14, 021107 (2017)

- C. Fry *et al.*, *Discovery of $^{34g,m}Cl(p,\gamma)^{35}Ar$ Resonances Relevant for Classical Nova Nucleosynthesis*, Proceedings of the 14th International Symposium on Nuclei in the Cosmos, JPS Conf. Proc. 14, 020502 (2017)

- W.A. Richter, B.A. Brown, C. Wrede, *Determination of the important $^{30}P(p,\gamma)^{31}S$ astrophysical rapid-proton capture reaction rate*, Proceedings of the 14^{th} International Conference on Nuclear Reaction Mechanisms, submitted to the CERN Proceedings series.

- G. Berg, D. W. Bardayan, J. C. Blackmon, K. A. Chipps, M. Couder, U. Greife, U. Hager, F. Montes, K. E. Rehm, H. Schatz, M. S. Smith, M. Wiescher, C. Wrede, *A Recoil Separator for Nuclear Astrophysics SECAR*, Proceedings of the 17^{th} International Conference on Electromagnetic Separators and Related Topics, Nucl. Instrum. Methods B 376, 165 (2016)

- C. Wrede for the NSCL Experiment 10034, 12028, and 14066 Collaborations, *β delayed γ decay measurements to probe thermonuclear astrophysical explosions*, Proceedings of Science (13th International Symposium on Nuclei in the Cosmos), 039 (2015)

- M.B. Bennett, C. Wrede, K.A. Chipps, J. José, S.N. Liddick, M. Santia, A. Bowe, A.A. Chen, N. Cooper, D. Irvine, E. McNeice, F. Montes, F. Naqvi, R. Ortez, S.D. Pain, J. Pereira, C. Prokop, J. Quaglia, S.J. Quinn, S.B. Schwartz, S. Shanab, A. Simon, A. Spyrou, E. Thiagalingam, *Measurement of the Beta Decay of ^{26}P to Determine Classical Nova ^{26}Al Production in the Milky Way Galaxy*, Proceedings of Science (13th International Symposium on Nuclei in the Cosmos), 040 (2015)

- C. Wrede, *The Facility for Rare Isotope Beams*, Proceedings of the 15th International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics (CGS15), EPJ Web of Conferences 93, 07001 (2015)

- C. Wrede, M. B. Bennett, S. N. Liddick, D. W. Bardayan, A. Bowe, B. A. Brown, A. A. Chen, K. A. Chipps, N. Cooper, C. Fry, B. Glassman, D. Irvine, J. Jose, C. Langer, N. Larson, E. I. McNeice, Z. Meisel, F. Montes, F. Naqvi, S. D. Pain, P. O'Malley, R. Ortez, W. Ong, J. Pereira, D. Perez-Loureiro, C. Prokop, J. Quaglia, S. Quinn, M. Santia, H. Schatz, S. B. Schwartz, A. Simon, S. Shanab, A. Spyrou, S. Suchyta, E. Thiagalingham, P. Thompson, M. Walters, *β decay as a probe of explosive nucleosynthesis in classical novae*, Proceedings of the 23rd Conference on Applications of Accelerators in Research and Industry (CAARI 2014), Physics Procedia 66, 532 (2015)

- C. Wrede for the NSCL Experiment 10034 collaboration, *β decay of ^{26}P to determine the $^{25}Al(p,\gamma)^{26}Si$ reaction rate in novae*, Proceedings of Science (12th International Symposium on Nuclei in the Cosmos), 242 (2013)

- A. Knecht, Z. T. Alexander, Y. Bagdasarova, T. M. Cope, B. G. Delbridge, X. Fléchard, A. García, R. Hong, E. Liénard, P. Mueller, O. Naviliat-Cuncic, A. S. C. Palmer, R. G. H. Robertson, D.W. Storm, H. E. Swanson, I. Towner, S. Utsuno, W. Williams, C. Wrede, and D.W. Zumwalt, *Weak Interaction Studies with ^{6}He*, 11th Conference on the Intersections of Particle and Nuclear Physics (CIPANP 2012), AIP Conf. Proc. 1560, 636 (2013)

- A. Parikh, Th. Faestermann, R. Krücken, V. Bildstein, S. Bishop, K. Eppinger, C. Herlitzius, O. Lepyoshkina, P. Maierbeck, D. Seiler, K. Wimmer, R. Hertenberger, H.-F. Wirth, J. Fallis, U. Hager, D. Hutcheon, Ch. Ruiz, L. Buchmann, D. Ottewell, B. Freeman, Ch. Wrede, A. García, B. Delbridge, A. Knecht, A. Sallaska, A. A. Chen, J. A. Clark, C. M. Deibel, B. Fulton, A. Laird, U. Greife, B. Guo, E. Li, Z. Li, G. Lian, Y. Wang, W. Liu, P. D. Parker, K. Setoodehnia, *Improving the $^{33}S(p,\gamma)^{34}Cl$ Reaction Rate for Models of Classical Nova Explosions*, Frontiers in Nuclear Structure, Astrophysics, and Reactions (FINUSTAR 3), AIP Conference Proceedings, 1377, 188 (2011)

- A. A. Chen, K. Setoodehnia, J. Chen, J. A. Clark, C. M. Deibel, S. D. Geraedts, D. Kahl, P. D. Parker, D. Seiler, C. Wrede, *Proton-Rich Sulphur and Nucleosynthesis in Classical Novae*, The 4th International Conference on Proton Emitting Nuclei and Related Topics, AIP Conference Proceedings, 1409, 63 (2011)

- C. Wrede, J. A. Clark, C. M. Deibel, T. Faestermann, R. Hertenberger, A. Parikh, H. Wirth, S. Bishop, A. A. Chen, K. Eppinger, B. M. Freeman, R. Krücken, O. Lepyoshkina, G. Rugel, K. Setoodehnia, *Precision measurements of ^{20}Na, ^{24}Al, ^{28}P,*

^{32}Cl, *and* ^{36}K *for the rp process*, Proceedings of Science (11th International Symposium on Nuclei in the Cosmos), 198 (2010)

- A. L. Sallaska, C. Wrede, A. García, D. W. Storm, T. A. D. Brown, C. Ruiz, K. Snover, D. F. Ottewell, L. Buchmann, C. Vockenhuber, D. A. Hutcheon, J. A. Caggiano, *Destruction of* ^{22}Na *in novae: surprising results from an absolute measurement of* $^{22}Na(p,\gamma)^{23}Mg$ *resonance strengths*, Proceedings of Science (11th International Symposium on Nuclei in the Cosmos), 122 (2010)

- A. Parikh, T. Faestermann, R. Krücken, V. Bildsten, S. Bishop, K. Eppinger, C. Herlitzius, O. Lepyoshkina, P. Maierbeck, D. Seiler, K. Wimmer, R. Hertenberger, H.-F. Wirth, J. Fallis, U. Hager, D. A. Hutcheon, C. Ruiz, L. Buchmann, D. Ottewell, B. Freeman, C. Wrede, A. García, B. Delbridge, A. Knecht, A. Sallaska, A. A. Chen, J. A. Clark, C. M. Deibel, B. Fulton, A. Laird, U. Greife, B. Guo, E. Li, Z. Li, G. Lian, Y. Wang, P. D. PArker, K. Setoodehnia, *The* $^{33}S(p,\gamma)^{34}Cl$ *reaction in classical nova explosions*, Proceedings of Science (11th International Symposium on Nuclei in the Cosmos), 065 (2010)

- K. Setoodehnia, A.A. Chen, J. Chen, J.A. Clark, C.M. Deibel, D. Kahl, W.N. Lennard P.D. Parker, C. Wrede, *Study of Astrophysically Important Resonant States in* ^{30}S *Using the* $^{32}S(p,t)^{30}S$ *Reaction*, The 10th International Conference on Nucleus-Nucleus Collisions proceedings, Nucl. Phys. A834, 205c (2010)

- K. Setoodehnia, A.A. Chen, J. Chen, J.A. Clark, C.M. Deibel, D. Kahl, W.N. Lennard P.D. Parker, C. Wrede, *Study of Astrophysically Important Resonant States in* ^{30}S *Using the* $^{32}S(p,t)^{30}S$ *Reaction*, Nuclear Physics and Astrophysics IV proceedings, Journal of Physics: Conference Series 202, 012042 (2010)

- K. Setoodehnia, A.A. Chen, J. Chen, J.A. Clark, C.M. Deibel, D. Kahl, W.N. Lennard P.D. Parker, C. Wrede, *Study of Astrophysically Important Resonant States in* ^{30}S *Using the* $^{32}S(p,t)^{30}S$ *Reaction*, Second International Workshop on Compound Nuclear Reactions and Related Topics, Eur. Phys. J. Web of Conferences 2, 14005 (2010)

- C.M. Deibel, J.A. Clark, R. Lewis, A. Parikh, P.D. Parker, C. Wrede, *Toward an experimentally determined* $^{26m}Al(p,\gamma)^{27}Si$ *reaction rate in ONe novae*, Fusion08: New aspects of Heavy Ion Collisions Near the Coulomb Barrier proceedings, AIP Conf. Proc. 1098, 175 (2009)

- C. Wrede, D.W. Visser, J.A. Caggiano, J.A. Clark, C. Deibel, R. Lewis, A. Parikh, P.D. Parker, *Measurement of* ^{23}Mg*+p resonance energies*, Proceedings of Science (10th International Symposium on Nuclei in the Cosmos), 164 (2008)

- C. Wrede, J.A. Caggiano, J.A. Clark, C. Deibel, A. Parikh, P.D. Parker, *First measurement of the* $^{31}P(^3He,t)^{31}S$ *reaction: a study of the thermonuclear* $^{30}P(p,\gamma)^{31}S$ *reaction rate*, Proceedings of Science (10th International Symposium on Nuclei in the Cosmos), 062 (2008)

- C.M. Deibel, J.A. Clark, R. Lewis, A. Parikh, P.D. Parker, C. Wrede, *The* $^{26m}Al(p,\gamma)^{27}Si$ *Reaction Rate in ONe Novae*, Proceedings of Science (10th International Symposium on Nuclei in the Cosmos), 053 (2008)

- K. Setoodehnia, A.A. Chen, J.A. Clark, C.M. Deibel, D. Kahl, P.D. Parker, C. Wrede, *Study of Astrophysically Important Resonant States in* ^{30}S *Using the* $^{32}S(p,t)^{30}S$ *Reaction*, Proceedings of Science (10th International Symposium on Nuclei in the Cosmos), 161 (2008)

- U. Greife, J. Livesay, C. Jewett, K. Chipps, F. Sarazin, D. Bardayan, J. Blackmon, C. Nesaraja, M.S. Smith, A. Champagne, R. Fitzgerald, K. Jones, J. Thomas, R. Kozub, L. Buchmann, J. Caggiano, D. Hunter, D. Hutcheon, A. Olin, D. Ottewell, J. Rogers, C. Ruiz, G. Ruprecht, M. Trinczek, C. Vockenhuber, S. Bishop, J. DAuria, M. Lamey, W. Liu, C. Wrede, M.L. Chatterjee, A.A. Chen, J. Pearson, S. Engel, A.M. Laird, D. Gigliotti, A. Hussein, *Recent results of experiments with radioactive ^{21}Na and ^{7}Be ion beams*, Nineteenth International Conference on The Application of Accelerators in Research and Industry proceedings, Nucl. Instrum. Methods B 261, 1089 (2007)

- S.J. Freeman, B.P. Kay, J.P. Schiffer, J.A. Clark, C. Deibel, A. Heinz, A. Parikh, P.D. Parker, E. Rehm, C. Wrede, *Shifts in neutron single-particle states outside N=82*, International Nuclear Physics Conference proceedings (2007)

- J.Clark, A. Parikh, F. Buchinger, J.A. Caggiano, J.E. Crawford, C. Deibel, J.P. Greene, S. Gulick, J.C. Hardy, A.A. Hecht, J.K.P. Lee, A.F. Levand, R.Lewis, B.F. Lundgren, P.D. Parker, G. Savard, N.D. Scielzo, K.S. Sharma, I. Tanihata, W. Trimble, J.C. Wang, Y. Wang, C. Wrede, Z. Zhou *Mass measurements of ^{22}Mg and ^{26}Si via (p,t) reactions and Penning traps*, Proceedings of Science (9th International Symposium on Nuclei in the Cosmos) 081 (2006)

- C. Ruiz, A. Parikh, J. Jose, L. Buchmann, J.A. Caggiano, A.A. Chen, J.A. Clark, H. Crawford, B. Davids, J.M. D'Auria, C. Davis, C. Deibel, L. Erikson, L. Fogarty, D. Frekers, U. Greife, A. Hussein, D.A. Hutcheon, M. Huyse, C. Jewett, A.M. Laird, R. Lewis, P Mumby-Croft, A. Olin, D.F. Ottewell, C.V. Ouellet, P. Parker, J. Pearson, G. Ruprecht, M. Trinczek, C. Vockenhuber, C. Wrede, *The ^{26g}Al(p,γ)^{27}Si reaction in novae*, Proceedings of Science (9th International Symposium on Nuclei in the Cosmos) 004 (2006)

- A.A. Chen for the DRAGON and CRIB collaborations, *Probing Galactic ^{26}Al with Exotic Ion Beams*, International Symposium on Origin of Matter and Evolution of Galaxies, AIP 847, 298 (2005)

- M. Trinczek, C.C. Jewett, S. Bishop, L. Buchmann, A.A. Chen, J. D'Auria, S. Engel, D. Gigliotti, U. Greife, D. Hunter, A. Hussein, D. Hutcheon, J. Jose, A. Laird, M. Lamey, R. Lewis, A. Olin, D. Ottewell, P. Parker, M.M. Pavan, J. Pearson, J.G. Rogers, C. Ruiz, C. Wrede, *Direct Measurement of the ^{21}Na(p,γ)^{22}Mg Reaction: Resonance Strengths and Gamma-Gamma Analysis*, Proceedings of the 8th International Symposium on Nuclei in the Cosmos, Nucl. Phys. A758, 729 (2005)

- A.A. Chen, R.E. Azuma, S. Bishop, L. Buchmann, M.L. Chatterjee, J.M. D'Auria, S. Engel, D. Gigliotti, U. Greife, D. Hunter, A. Hussein, D. Hutcheon, C.C. Jewett, J. Jose, J.D. King, A.M. Laird, M. Lamey, R. Lewis, W. Liu, A. Olin, D. Ottewell, P. Parker, J. Rogers, C. Ruiz, M. Trinczek, C. Wrede, *The ^{21}Na(p,γ)^{22}Mg reaction in novae and x-ray bursts*, 22nd International Nuclear Physics Conference proceedings (Part 2), Nucl. Phys. A752, 510c (2005)

- J.M. D'Auria for the DRAGON collaboration, *Nuclear Astrophysics at ISAC with DRAGON*, International Conference on Nuclear Data for Science and Technology, AIP 769, 1345 (2005)

- D.A. Hutcheon for the DRAGON collaboration, *Study of $^{21}Na(p,\gamma)^{22}Mg$ using the DRAGON separator*, Sixth International Conference on Radioactive Nuclear Beams (RNB6), proceedings, Nucl. Phys. A746, 359c (2004)

- J.M. D'Auria for the DRAGON collaboration, *Nuclear Physics and Astrophysics at the ISAC Radioactive Beams facility*, International Conference on The Labyrinth in Nuclear Structure, AIP 701, 1 (2004)

- A. Olin, S. Bishop, L. Buchmann, M.L. Chatterjee, A.A. Chen, J.M. D'Auria, S.Engel, D.Gigliotti, U. Greife, D. Hunter, A. Hussein, D.A. Hutcheon, C.Jewett, S. Kubono, A. Laird, M. Lamey, R. Lewis, W.Liu, S. Michimasa, D. Ottewell, P.D. Parker, J. Rogers, F. Strieder, M. Weischer, C. Wrede, *Nuclear Astrophysics at ISAC with DRAGON: Initial Studies*, XVI International Conference on Particles and Nuclei (PANIC) proceedings, Nucl. Phys. A721, 1019 (2003)

- S.Engel, S. Bishop, L. Buchmann, M.L. Chatterjee, A.A. Chen, J.M. D'Auria, D. Gigliotti, U. Greife, D. Hunter, A. Hussein, D.A. Hutcheon, C.Jewett, J. King, S. Kubono, M. Lamey, R. Lewis, W.Liu, A.Olin, D. Ottewell, P.D. Parker, J. Rogers, F. Strieder, C. Wrede, *Measurements with DRAGON on resonances in the $^{21}Na(p,\gamma)^{22}Mg$ reaction with a radioactive ion beam*, 17th Nuclear Physics Divisional Conference (NPDC) proceedings, Nucl. Phys. A719, 107 (2003)

- R.E. Azuma, S. Bishop, L. Buchmann, M.L. Chatterjee, A.A. Chen, J.M. D'Auria, T. Davinson, S.Engel, B.R. Fulton, D.Gigliotti, U. Greife, D. Hunter, A. Hussein, D.A. Hutcheon, C.Jewett, J. King, N. Khan, S. Kubono, A. Laird, M. Lamey, R. Lewis, W.Liu, S. Michimasa, A.S. Murphy, A.Olin, D. Ottewell, P.D. Parker, J. Pearson, I. Roberts, A. Robinson, J. Rogers, G. Roy, C. Ruiz, F. Sarazin, A.C. Shotter, H. Sprenger, F. Strieder, P. Walden, P.J. Woods, C. Wrede, *Results of ^{21}Na + p Experiments at ISAC*, Nuclei in the Cosmos (NIC-7) conference proceedings, Nucl. Phys. A718, 119c (2003)

- S. Bishop, R. Azuma, A.A. Chen, M.L. Chatterjee, J.M. D'Auria, S.Engel, D.Gigliotti, U. Greife, D. Hunter, A. Hussein, D.A. Hutcheon, C.Jewett, J. King, S. Kubono, M. Lamey, R. Lewis, W.Liu, S. Michimasa, A.Olin, D. Ottewell, P.D. Parker, J. Rogers, C. Wrede, *Nuclear Astrophysics Studies at DRAGON: The $^{21}Na(p,\gamma)^{22}Mg$ Reaction and Oxygen-Neon Novae*, Nuclei in the Cosmos (NIC-7) conference proceedings, Nucl. Phys. A718, 263c (2003)

- D.A. Hutcheon, S. Bishop, L. Buchmann, M.L. Chatterjee, A.A. Chen, J.M. D'Auria, S. Engel, D. Gigliotti, U. Greife, D. Hunter, A. Hussein, C.C. Jewett, N. Khan, M. Lamey, W. Liu, A. Olin, D. Ottewell, J.G. Rogers, G. Roy, H. Sprenger, C. Wrede, *The DRAGON Facility for Nuclear Astrophysics at TRIUMF-ISAC*, Nuclei in the Cosmos (NIC-7) conference proceedings, Nucl. Phys. A718, 515c (2003)

- A.A. Chen, S. Bishop, L. Buchmann, M.L. Chatterjee, J.M. D'Auria, S.Engel, D.Gigliotti, U. Greife, D. Hunter, A. Hussein, D.A. Hutcheon, C.Jewett, J. King, S. Kubono, A. Laird, M. Lamey, R. Lewis, W.Liu, S. Michimasa, A.Olin, D. Ottewell, P.D. Parker, J. Rogers, F. Strieder, M. Weischer, C. Wrede, *Measurement of the $^{21}Na(p,\gamma)^{22}Mg$ Reaction with the DRAGON Facility at TRIUMF-ISAC*, 17th International Conference on the Application of Accelerators in Research and Industry (CAARI-2002) proceedings, AIP 680, 237 (2003)

- C. Wrede, A. Hussein, J.G. Rogers, J. D'Auria, *A Double Sided Silicon Strip Detector as an End Detector for DRAGON*, Electromagnetic Isotope Separator (EMIS-14) conference proceedings, Nucl. Instrum. Methods B 204, 619 (2003)
- A. Olin, S. Bishop, L. Buchmann, M.L. Chatterjee, A.A. Chen, J.M. D'Auria, S.Engel, D.Gigliotti, U. Greife, D. Hunter, A. Hussein, D.A. Hutcheon, C.Jewett, J. King, S. Kubono, A. Laird, M. Lamey, R. Lewis, W.Liu, S. Michimasa, D. Ottewell, P.D. Parker, J. Rogers, F. Strieder, M. Weischer, C. Wrede, *Nuclear Astrophysics at ISAC with DRAGON: Initial Studies*, International Conference on Classical Nova Explosions proceedings, AIP 637, 119 (2002)

Faculty Development

- MSU Office of the Vice President for Research and Graduate Studies
  - NSF Panel Discussion: Hard Science/Biology, Kellogg Center, 2:45-4:00pm February 11th, 2016
- MSU University Outreach and Engagement
  - COMPASS Science Communication Workshop for Faculty and Academic Staff, Kellogg Center, 9:00am-noon, May 18th, 2016
  - Broader Impacts for Investigators Workshop, Kellogg Center, 1:30-4:30pm February 4th, 2016
- MSU Center for Integrative Studies in Natural Science Workshops
  - Emergency Training, S. Kedzie 107, 1:30-3:00pm, August 29th, 2016
  - Undergraduate Learning Goals and Course Accessibility, N. Kedzie 212, 11:30am-1:30pm, August 26th, 2015
  - Accredation, N. Kedzie 212, 11:30am-1:30pm, November 21st, 2014
- American Physical Society and American Association of Physics Teachers, New Faculty Workshop, Baltimore, MD, June 25th-28th, 2012
- American Physical Society, Faculty Mentoring Session, Kellogg Hotel and Conference Center, East Lansing, MI, October 29th, 2011, 2-5pm
- MSU College of Natural Science Workshops
  - NatSci Teaching Town Hall, online, 1:00-3:00, February 17th, 2023
  - EdTech Committee Town Hall, online, 3:00-4:30pm, June 25th, 2020
  - Workshop on cultural competency for personal, organizational, and community change, Student Services Building, Room 6, 8:30am-4:30pm, October 21st, 2019
  - Reappointment, Promotion and Tenure Workshop, CNS 105, 12:00am-2:00pm March 30th, 2016
  - Promoting Student Success in the Classroom Workshop, Union Ballroom, 12:00-2:00pm, March 24th, 2016

  - Reappointment, Promotion and Tenure Workshop, CNS 105, 11:30am-1:30pm March 20th, 2013
  - Reappointment, Promotion and Tenure Workshop, CNS 105, 11:30am-1:30pm September 21st, 2011
  - Workshop on Grant Proposals, BPS 1425, 12-2pm, September 6th, 2011
  - New Faculty Orientation, CNS 105, 3:30pm-5:00pm, August 29th, 2011

- MSU Orientation for Tenure System and Health Program Faculty, Continuing System Librarians, National Superconducting Cyclotron Laboratory Appointments, and Executive Managers, August 23rd, 2011, The Kellogg Center, 7:30am-1:30pm; Information Fair, 1:30pm-3:00pm

- MSU Faculty and Organizational Development Workshops

  - Survive and Thrive in the MSU Tenure System, MSU Union, 8:30am-noon, February 21st, 2013
  - Getting Started at MSU: An Overview of Faculty Responsibilities and Regulations Related to Accessing and Protecting Student Information, 1-3pm, August 17, 2011
  - Office of the Registrar: Requirements, Resources, and Recommendations, 1-3pm, August 17, 2011
  - Developing the Course Syllabus, 1-3pm, August 17, 2011

- MSU Technology Orientation for New Faculty

  - Research Resources Track (Library Research Resources, Data Management at MSU, iCER/High Performance Computing), 1:00-4:30pm, August 16, 2011
  - Instructional Resources Track (Technology Resources, Library Teaching Resources, ANGEL, Classroom Technology), 8:30am-12:15pm, August 17, 2011

- MSU STEM Teaching Essentials Workshops

  - Shifting your small class strategies to big class contexts: Tips for making big classes seem small(er), 11:15-1:00pm, February 13th, 2018
  - Starting off on the right foot: Organizing Your First Day of Class, 11:30am-1:30pm, Plant and Soil Sciences 1200, August 23rd, 2012
  - Effective Assessment and Evaluation, 11:30am-1:30pm, 3405 Engineering, November 11th, 2011
  - Starting off on the right foot: Organizing Your First Day of Class, 11:30am-1:30pm, Erickson 103, August 29th, 2011

- Lilly Teaching Teaching Seminar Series

  - Deborah Meizlish, Metacognitive Strategies to Foster Students' Disciplinary Thinking and Writing Skills, 1-3pm, November 11th, 2011, Kellogg Center, Centennial Rooms
  - Students Speak: Students with Multiple Marginalized Identities, 2-5pm, October 6th, MSU Union, Gold Rooms A and B

  - Gerald Noisch, An Introduction to the Fundamentals of Critical Thinking and the Art of Instruction, 9am-4pm, September 30th, MSU Union, Gold Rooms A and B
  - Karl Smith, Active and Cooperative Learning, 1-4pm, September 22nd, MSU Union, Gold Rooms A and B
  - Karl Smith, Scholarship of Teaching and Learning, 9am-noon, September 22nd, MSU Union, Gold Rooms A and B

- MSU Office of Institutional Equity
  - Liz Abdnour, Relationship Violence and Sexual Misconduct training, October 24th, 2017

- National Superconducting Cyclotron Laboratory and Facility for Rare Isotope Beams
  - Phishing Awareness Training, online, 2017
  - Matt Helm and Scott Becker, Graduate Student Wellness, April 20th, 2017, 3:00pm, NSCL Lecture Hall
  - Kristine Moore, MSU Assistant General Council, Guidelines for Positive Student/Faculty Interactions, noon-1:00pm, May 18th, 2016, BPS 1400
  - Faculty Search Committee Training, online 2016
  - Faculty Mentoring Lunch, March 21st, 2016, noon-1:00pm, Nuclear Conference Room
  - Procurement Technical Representatives (PTR) Training, 2016
  - Melissa Congleton, Bruce Fowler, and John Cecil (FBI), Foreign Travel, December 2nd, 2015, Nuclear Conference Room
  - Electrical Safety Awareness Training, online 2015
  - Matt Helm and Scott Becker, Graduate Student Mental Health, November 11th, 2014, 4:00pm, BPS 1300
  - Deborah Dezure, Effective Practices in Faculty Mentoring, February 22nd, 2013
  - Level II Boundaries Training, online, 2011
  - Environmental Management System Introduction, online, 2011
  - Back Safety Training, online, 2011
  - Stop Work Order Training, online, 2011
  - Quality Management System Introduction, online, 2011
  - Occupational Health and Safety Management System Introduction, online, 2011
  - Work Alone Policy Training, online, 2011
  - Safety Sign Standard Training, online, 2011
  - Ladder Safety Training, online, 2011
  - Radiation Safety Level II Training, online, annually since 2011
  - Radioactive Source User Training, online, 2011
  - General Employee Refresher Training, online, annually since 2011

- MSU Registrar's Office

  - Relationship Violence and Sexual Misconduct training, Not Anymore for Employees, online, 2023
  - Relationship Violence and Sexual Misconduct training, Not Anymore for Employees, online, 2021
  - Diversity: Inclusion in the Modern Workplace, online, 2020
  - Relationship Violence and Sexual Misconduct training, Not Anymore for Employees, online, 2019
  - Relationship Violence and Sexual Misconduct training, Not Anymore for Employees, online, 2017
  - The Top 10 of Security Awareness, online, 2016
  - PCI DSS Fundamentals, online, 2016
  - Acceptable Use Policy for MSU Information Technology Resources, online, 2016
  - MSU Institutional Data Policy, online, 2016
  - MSU Information Technology Security Standard, online, 2016
  - FERPA for MSU Faculty and Staff, online, 2016
- MSU Department of Physics and Astronomy
  - Gradescope demonstration, online, 3:30-4:30pm, July 1st, 2020
  - Julie Posselt and Casey Miller, Workshop on Graduate Admissions Practices, 9am-noon, September 8th, 2017, BPS Building
- MSU STEM Alliance
  - Carl Wieman, Taking a scientific approach to the learning and teaching of science, 3-5pm, September 15th, 2017, Kellogg Lincoln Room
- MSU Communications and Brand Strategy and the College of Arts and Letters
  - Communicating Beyond Journals and Peers: Your Online Presence, 1-4pm, March 21st, 2018, Digital Scholarship Lab, MSU Library
- MSU Central IT and MSU Hub for Innovation and Technology
  - Summer Online Instruction Readiness for Educational Excellence (SOIREE4) program, May 26-29, 2020, online
- MSU College of Agriculture, Office of Diversity, Equity, and Inclusion
  - Virtual Settings: Ripe Environment for Unconscious Bias with Amy Bonomi, PhD, MPH, Nelia Viveiros, EdD, LLB, June 10th, 2020
- MSU Division of Student Affairs and Services
  - Understanding Pronouns Workshop, online, 1:00-2:30pmDecember 7th, 2020
- Rebuilding Hope: Teaching in the Aftermath, Webinar, 10:00-11:30am, February 17th, 2023