Ani Aprahamian

Frank M. Freimann Professor of Physics

Department of Physics
University of Notre Dame
Notre Dame, Indiana 46556
Telephone: 574 631-8120
Fax: 574 631-5952
aapraham@nd.ed

Education

Ph.D.	Clark University, Worcester, Massachusetts 1986
B.A.	Clark University, Worcester, Massachusetts 1980

Experience (recent)

2022-2025	Chair of IUPAP Commission 12 (Nuclear Physics)
2022	US Liaison Committee for IUPAP at the National Academies of Science, Engineering, and Medicine
2022	Science Advisory Board of the School in Nuclear Astrophysics, Russbach, Austria
2021	Appointed as 1 of 5 Vice Presidents of IUPAP-Executive Committee
2021	Board member of BAND Bayesian Analysis of Nuclear Dynamics) Framework.
2021	Member of SciPEP Steering Committee- DOE + Kavli Foundation on sustainable, and effective science engagement
2020-2022	Fulbright Scholar to Armenia
2020-2023	Scientific Council Member of Joint Institute of Nuclear Reactions, Dubna, Russian Federation, Elected June 20, 2020 until March 2023.
2019-2021	GSI-FAIR ECE and ECSG
2019-present	GANIL Scientific Advisory Committee
2018-present	Director of A. Alikhanyan National Science Laboratory of Armenia
2018-present	US Liaison Committee for the IUPAP
2018-2021	Secretary of IUPAP Commission-12 (Nuclear Physics)
2018-present	Chair of FRIB Science Advisory Committee

2018-2020	**Discovery Science Technical Review Committee** of the National Ignition Facility at LLNL, Livermore, CA.
2017, 2018	Physical and Life Sciences External Review Committee, LLNL
2019	NSF panel, NNSA centers of excellence panel, DOE office of Science in Nuclear Physics
2016-2018	**Vice-Chair of National Academies Committee on the "Science of the EIC"**
2015-present	Member of IUPAP Working Group-10 on Astro-Particle Physics (APpic)
2014	Chair of American Institute of Physics, "Physics Today" Advisory Board
2014	Chair of the APS Division of Nuclear Physics
2014	Member of Nuclear Science Advisory Committee
2010	**Vice-Chair of National Academies Decadal Survey of Nuclear Physics (NP2010)**
2010-2024	Member of Board of Directors for South Dakota Science and Technology Authority (Sanford Underground Laboratory)
2008-2010	Co-Chair of NSAC subcommittee on **Isotope Production and Applications**
2006-2008	Program Director for **Nuclear Physics** and **Particle & Nuclear Astrophysics** at the National Science Foundation
2003-2006	Chair of Physics Department, University of Notre Dame
2001-2006	Director of Nuclear Science Laboratory, University of Notre Dame

Honors, Awards, and Professional Memberships

Armenian American Medical Society award "In recognition of outstanding leadership and dedication in expanding the capacity of the scientific and healthcare sectors of the Republic of Armenia", November 20, 2022

Science Council of Joint Institute for Nuclear Research, Dubna, Russian Federation, elected (2020-2023)

Mace Bearer for the College of Science, 2017-2018

Elected Member of the Institute of Physics, 2018

Elected as secretary general of the International Union of Pure & Applied Physics Commission on Nuclear Physics: C-12, October, 2017

Recognized by the American Physical Society as an "Outstanding Referee", January 2016

Election to the International Union of Pure & Applied Physics Commission on Nuclear Physics: C-12, January 2015 –present

Elected to the IUPAP International committee on AstroParticle Physics, ApPIC, WG- 10, 2016

Appointed by Associate Laboratory Director for Nuclear & Particle Physics to Search committee for permanent Director of the BNL Isotope Program, 2014

Appointed to Institute of Physics panel to evaluate health of physics research in the UK, 2011-2012

Appointed Science Advisory Board to Alikhanyan National Laboratory by prime minister of Armenia, 2011

Elected as advisor to the Mexican Physical Society, 2011

Appointed to the Board of Directors of South Dakota Science and Technology Authority for Sanford Laboratory, 2010-2021, renewed 2022-2025

National Science Academy of Republic of Armenia Elected Foreign member, 2008

NSF Director's Award for Collaborative Integration, 2008

Provost's Recognition Award, ND vs. Pitt Football game on the field, 2008

College of Arts & Letters Award of Appreciation, Notre Dame, 2006

Presidential Award, University of Notre Dame, 2003

Women in Science	1 of 3 panelists at session of **"Most Influential Women in Science and Scientific Publishing"** at the 49th Annual Meeting of the Council of Science Editors, May 21, 2006
Fellow	Elected Fellow of the **ACS**, 2021
	Elected Fellow of the **AAAS**, 2008
	Elected Fellow of the **American Physical Society**, 1999
	Reilly Center for Science, Technology and Values, Notre Dame, 2006
	The Collegium Common Room (The Liberal Arts and the 21st Century Intellectual Quest), 2007, 2008, 2009, 2010
Member	AAAS, ACS, APS, Sigma Xi, New York Academy of Science, Mexican Physical Society
Academy Member	Science Academy of Republic of Armenia, Foreign Member

Reviewer (Proposals and Publications in Journals)

1. Phys. Rev. Lett.
2. Phys. Rev. C
3. Phys. Lett. B
4. Nuclear Phys. A, E
5. European Physics Journal
6. Physica Scripta
7. Nature Physics
8. NIM
9. U.S. Civilian Research & Development Foundation (CRDF)
10. International Science & Technology Center, 2005-2006, (**ISTC:** Non-proliferation through Science Cooperation) National Science Foundation
11. American Institute of Physics
12. Department of Energy
13. Institute of Physics (United Kingdom)
14. Fondazione Cassa di Risparmio di Padova e Rovigo (Italy)
15. National Research Councils (US and Canada)

16. US-Israel Binational Science foundation (Israel-USA)
17. The Knut and Alice Wallenberg Foundation (Sweden)
18. Swiss National Science Foundation (Switzerland)
19. NSERC: National Science & Engineering Council (Canada)

Departmental and Programmatic Reviewer

1. Clemson University, 2022
2. United Arab Emirates, (UAE), 2021
3. University of Vienna Physics Faculty (Austria) 2020
4. LLNL – Physical and Life Sciences Directorate External Review Committee, 2018
5. Cyclotron Institute at Texas A&M University, 2016
6. Indiana University, Bloomington: Chair of External Review Committee (2008)
7. Ohio State University, 2008
8. United Kingdom Universities with regards to Nuclear Physics (United Kingdom), 2012

Editor

Capture Gamma-Ray Spectroscopy and Related Topics, AIP Conference Proceedings, Vol. 819, 2006.

Mapping the Triangle, AIP Conference Proceedings 638, 2002.

Journal of Research of the National Institute of Standards and Technology, 2000

Media Appearances and Interviews

2022

1. On Boosting the Field of Natural Science in Armenia, **Jan. 1, 2022**
https://www.civilnet.am/en/news/646399/on-boosting-the-field-of- natural-science-in-armenia/?lang=en
2. ARMENIA'S BRAIN GAIN: Episode 1 - The Yerevan Physics Institute and Prof. Ani Aprahamian, **February 2, 2022**
https://youtu.be/XDdffBBq6bQ
3. Best Time of life to fall in love with Science, **March 17, 2022**
https://aybpod.simplecast.com/episodes/11?fbclid=IwAR2eA0SfvxNQFq5D_GzTOHPlTdOMaU3kAn9SbDKh8KhxORkrliLOXwU7p0k
4. Science, Erevan Reports Podcast #6, **May 5, 2022**
https://boon.am/evn-podcast-5-science/
5. Interview with Petros Ghazaryan on Public TV 1 news, **July 26, 2022**
https://youtu.be/LSegWOlMdm0
6. ASOF aims to Deploy Full Force of Diasporan Scholars to Strengthen Armenia, Mirror Spectator, Augst 2, 2022.
https://mirrorspectator.com/2022/08/02/asof-aims-to-deploy-full-force-of-diasporan-scholars-to-strengthen-armenia/
7. Armenian Society of Fellows, **Network Nation**, August 15, 2022.
8. We live too much in the Past while the future is upon us, August 2, 2022
https://youtube.com/watch?v=NkuNoOtCtnM&feature=shares
9. Armenian Society of Fellows, Network Nation, August 15, 2022.

External Committees - International

Scientific Advisory Committees

ASOF	**Armenian Society of Fellows – Chair of Executive Board 2021-present**
NIC	**Science Advisory Committee of Nuclei in the Cosmos, 2022-2023**
JINR	**Science Council, 2020-2025**
GANIL	**Scientific Council, 2019-2023**
GSI-FAIR	**Expert Committee Experiments 2018-2021**
JINA-CEE	**International Advisory Committee, 2015-2020** **MA-1 Coordinator, 2015-2018**
CAARI	**Conference on Applications of Accelerators in Research & Industry, 2016**
IUPAP	**US representative to C-12 (Nuclear Physics) and**
	member of WG-10 (Astroparticle Physics)
JINA	**International Advisory Committee, 2012-2015**
NNSA	**Center of Excellence for Stockpile Stewardship, 2015-2018**
TUNL	**Science Advisory Committee to TUNL, 2014, 2016**
IOP	**Review of Physics in the United Kingdom, 2011-2012**
ANL	**Science Advisory Board for Alikhanian National Laboratory (ANL), Republic of Armenia, 2011**
FRIB	**Facility for Rare Isotope Beams- Science Advisory Committee (2009-present)**
	Chair of FRIB Science Advisory Committee (2018-present)
	Chair of FRIB Proposal Advisory Committee (2021)
InComEx	**International committee of experts to evaluate science in Armenia (2009)**
FUSTIPEN	**Board member, France-US collaboration on Theory,** 2009-present
NSF	Committee to write policies on International Collaborations for the Mathematical and Physical Sciences Directorate as a representative of Physics Division (2008)
OECD	Nuclear Science Representative on OECD global Nuclear Forum (2007)
GSI	JINA representative to the **EMMI** Helmholtz Alliance to study "Extremes of Density and Temperature: Cosmic Matter in the Universe", Germany (2007-2012), 2013- present
	FAIR Expert Committee on Experiments (ECE), 2018-2021

GANIL **Chair** of scientific council, Caen, France (2007-2011)
Member of scientific council, Caen, France (2021-2024)

ISTC Collaboration with Armenia: 2006-2011

"Radiological Characterization and Database Creation in Support of ANPP Decommissioning Planning"

External Committees – National

USLC- USA Nominating committee for chair of the United States IUPAP Liaison Committee, 2022

SciPEP Kavli Foundation and DOE steering committee on sustainable and effective science engagement, 2021

National Academies

Co-Chair, NRC committee on the Science of the EIC, 2017-2018

Vice-Chair, NRC committee for decadal survey of **Nuclear Physics 2010, (2010-2012)**

NRC Committee on **Smaller Facilities,** 2003-2005

FRIB **Science Advisory Committee, 2014- 2018 (member)**

Chair of FRIB SAC, 2018- present

NIF **LLNL Discovery Science Technical Review Committee, 2018**

Nuclear Science Advisory Committee

Member of Long Range Plan Writing Group, 2015

Ex-officio member of NSAC as the chair of the Division of Nuclear Physics (APS-DNP), 2014-2015

Co-chair, NSAC Subcommittee on Isotope Production and Applications, 2008-2010

DOE/NSF **N**uclear **S**cience **A**dvisory **C**ommittee (NSAC), 2004-2006

NSAC Subcommittee on **revisiting priorities of the 2002 LRP for Nuclear Science**, 2005

American Institute of Physics

American Physical Society

Chair of the DNP Fellowship Committee, 2016

Appointed to Physics Policy Committee of the APS January 1, 2013-December 31, 2015

"Physics Today" Advisory Committee 2011-2012, 2012-2015

"Physics Today" Advisory Committee Chair, 2015

Hans Bethe Prize Committee Chair, 2014

Committee on Informing the Public, 2010-2012

Forum on International Physics: Nomination Committee, 2010

Tom W. Bonner Prize Selection Committee, **Chair**, 2007

Tom W. Bonner Prize Selection Committee, **Vice Chair**, 2006

Committee on **International Freedom of Scientists**, 2002-2006

Search Committee to find a successor for **Editor of Reviews of Modern Physics**, 2005

APS Committee on the Status of Women

SDSTA **South Dakota Science and Technology Authority, 2009-2021**

Reappointed by unanimous vote of SD Senate, 2022-2027

RTUVT **Radiological Technologies University-VT Advisory Board, 2016-present**

American Physical Society's Division of Nuclear Physics

Chair of DNP Fellowship Selection Committee, 2016

Chair of DNP, 2014

DNP Chair line duties, 2012-2016

Chair of Mentoring Award Committee, 2010, 2011, 2014

Chair of Dissertation Selection Committee, 2014

Member of Dissertation Selection Committee, 2015

Program Committee Chair, 2012, 2013

Elected as VICE-Chair, APS Division of Nuclear Physics, 2012

Hans-Bethe Award Selection Committee (2012, 2013, 2014)

Program Committee (2012-2013)

Fellowship Committee, 2008-2010

Executive Committee, 2005-2007

Program Committee, 2002-2004

WECAN (Women Encouraging Competitive Advancement in Nuclear Science) Steering Committee of the Division of Nuclear Physics, 2003-2005

Facility/Center Executive Committees

RIBSS Advisory Committee, Center for RadioActive Ion Beam Studies for Stewardship Science, NNSA center of excellence, 2015-present (Chair in 2016, 2017)

TUNL (Triangle Universities Nuclear Laboratory) Science Advisory Committee, 2011, 2013, 2014

FUSTIPEN board member (France-US Theory Collaboration), 2010 - present

Facility for Rare Isotope Beams, Science Advisory Committee, 2009-2012, 2013-2016

FRIB Users Executive Committee, 2009-2012

NSCL Program Advisory Committee, 2009-2015

JINA (Joint Institute for Nuclear Astrophysics), Executive Committee, 2002-present

ATLAS Users Executive Committee (Argonne National Laboratory), 2004-2006 (served as chair 2005)

National Laser Users Facility Steering Committee, University of Rochester, 2004-2006

NSCL Users Executive Committee, 2002-2005

LANSCE, Nuclear Physics PAC, Los Alamos National Lab, 2002-2005

HRIBF, Holifield Radioactive Ion Beam Facility Users Group, Oak Ridge National Laboratory, Oak Ridge, TN (served as chair 2002-2003)

GEANIE Detector Council, Los Alamos National Laboratory, 2000-2002

Advisory Committees for Conferences in the past 10 years

International Advisory Committee to Nucleus-Nucleus Collisions, TRIUMF, Vancouver, CANADA, July 17-23, 2021.

International Advisory Committee to Advances in Radioactive Isotope Science (ARIS), Avignon, France, June 14-19, 2020.

International Advisory Committee for the 17th International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics, CGS17, Grenoble, France, Aug 31-Sept 4, 2020.

International Advisory Committee to the 16th International Conference on Nuclei in the Cosmos, Chengdu, China, Sept 21-25, 2020.

International Advisory Committee to International Nuclear Physics Conference, Glasgow, Scotland, July 29-August 2, 2019.

International Advisory Committee to the conference on "Correlations in Partonic & Hadronic Interactions 2018", Yerevan, Armenia, Sept. 24-28, 2018.

International Advisory Committee for Advances in Radioactive Isotope Science, Keystone, CO, May 28-June 2, 2017.

International Advisory Committee for **Capture γ-ray Spectroscopy**, Shanghai, China, September 18-22, 2017.

International Advisory Committee for the p-process workshop, Notre Dame, IN, June 29-July 1, 2017.

International Advisory Committee for NIC XIV to take place in NIigata, Japan, June 19-24, 2016.

International Advisory Committee for Latin American Symposium on Nuclear Physics and Applications, Medellin, Columbia, November 30-December 4, 2015.

International Science Organizing Committee for 21st International Conference on Few Body Problems in Physics, Chicago, IL, May 18-22, 2015.

International Advisory Committee for CGS-15 "Capture Gamma-Rays and Related Topics", Dresden, Germany, August 25-29, 2014.

International Advisory Committee for "Nuclear Structure 2014" at Triumf, Vancouver, Canada, July 20-25, 2014.

International Advisory Committee for ARIS_2014, Advances in Radio-isotope Science, June 1-6, 2014, ITO International research center, University of Tokyo, Tokyo, Japan.

International Advisory Committee for "Nuclear Data for Science and Technology", NY, NY, March 4-8, 2013.

International Advisory Committee for "Beauty in Physics: Theory and Experiment" held in Cocoyoc, Mexico in Honor of the 70th Birthday of Franco Iachello, May 14-18, 2012.

International Advisory Committee for "Horizons of Innovative Theories, Experiments, and Supercomputing in Nuclear Physics" New Orleans, LA, June 2012.

International Advisory Committee for "14th International Symposium on Capture Gamma Ray Spectroscopy and Related Topics" held at the University of Guelph, Guelph, Ontario, Canada, August 28-September 2, 2011.

International Advisory Committee for "p-process workshop" held in Istanbul, Turkey, May 25-27, 2011.

International Advisory Committee for "Rutherford Centennial Conference on Nuclear Physics" held August 8-12, 2011 at the University of Manchester, Manchester UK.

International Advisory Committee for "21st European Conference on Few-Body Problems in Physics", held August 29-September 3 in Salamanca, Spain, 2010.

International Advisory Committee for 10th Topical Conference on Giant Resonances, "Collective motion in nuclei under extreme conditions" (COMEX 3), East Lansing, MI, June 2-5, 2009

International Advisory Committee for ENAM'08, 5th International Conference on Exotic Nuclei and Atomic Masses, held in Poland in 2008.

International Advisory Committee for Capture Gamma-Ray Spectroscopy 13, in Koeln, Germany, August 25-29, 2008.

International Advisory Committee for the 2007 International Conference on Nuclear Data for Science and Technology, Nice, France, April 22-27, 2007.

International Advisory Committee for the conference on exotic nuclei, Sanibel Island, FL, November 11-17, 2007.

International Advisory Committee for 9th Topical Conference on Giant Resonances, "Collective motion in nuclei under extreme conditions" (COMEX 2), Germany, June 20-23, 2006.

International Advisory Committee for International Conference on Nuclear Data for Science & Technology, Santa Fe, NM, September 2004.

Organizer

Modern Problems in Genetics, Radiobiology, Radioecololgy, and Evolution, Nor Amberd, Armenia, Oct 5-9, 2021. (co-chair)

Correlations in Partonic and Hadronic Interactions, September 24-28, Yerevan, Armenia, 2018.

Low Energy Nuclear Science & Applications using Cyclotrons in Armenia, Yerevan, Armenia, September 28, 2018.

Physics Outreach Event in honor of 75th Anniversary of the Founding of Yerevan Physics Institute, September 29, 2018. (Teams from the UK, Germany, USA)

Nuclear Astrophysics sessions, Gordon Research Conferences, Nuclear Chemistry, New London, NH, June 18-23, 2017**.**

CAARI 2016 organizer, (Conference on application of Accelerators in Research & Industry", Forth Worth, TX, Oct. 30 - Nov. 4, 2016

"Low metallicity nucleosynthesis and neutron capture processes", JINA-CEE Virtual Mini-Workshop, December 11, 2014

"Nuclear Science and Society", ND London, October 27-29, 2014

"Climate Change and the Common Good: Security, Sustainability, Policy" University of Notre Dame, Notre Dame, IN, April 8-10, 2013

"Beauty of Physics Theory and Experiment" Hacienda Cocoyoc, Morelos, Mexico, May 14-18, 2012

"Nuclear Structure 2012", Argonne National Laboratory, August 13-17, 2012

"Waltzing to the Nuclear Limits" A symposium in honor of Lee Riedinger, Hilton Head Island, SC, February 25-27, 2011

International Technical Program Committee (IPC) of ND-2007 to take place in Nice, France, April 22-27, 2007

CGS-12, International Conference on Capture □-ray Spectroscopy & Related Topics, Notre Dame, IN, September 4-9, 2005

APS Session **"Nuclear Structure in Astrophysics,"** Denver, CO, May 1-4, 2004

ACS Symposium on "**Nucleosynthesis 2000,"** Washington, DC, August 20-25, 2000

International Conference on "**Applications of High-Precision Gamma-Spectroscopy"**, Notre Dame, IN, July 1-3, 1998

"**Cosmology: Physics and Philosophical Perspectives,"** Notre Dame, IN, April 20, 2005

First JINA Workshop on the r-process, Gull Lake, MI, October 5-6, 2002

Working group on Nuclear Structure in Astrophysics, Division of Nuclear Physics Long Range Plan meeting, Oakland, CA, November 9-12, 2000

Midwest Workshop on New Frontiers in Nuclear Astrophysics, Apr. 18-20, 2000

International Workshop on the Interface between Nuclear Structure and Heavy-Ion Reaction Dynamics, Notre Dame, IN, May 24-26, 1990

International Conference on Nuclei in the Cosmos, Notre Dame, IN, June 24-27, 1996

University committees (Department, College, University)

Departmental Committees

Awards Committee 2022-2023
Undergraduate Curriculum Committee 2022-2023
Advisor to the Physics Majors class of 2020
Departmental Committee on Faculty Recruitment (2019-2020)
Chair of Undergraduate Research Committee (2017-2018)
Physics Department Committee on Honors Dissertation (2015, 2016, 2017)
Physics Department Undergraduate Research Committee (2011-2017)
Committee on Appointments and Promotions, 2013-2016
Education and Outreach 2011-2014
Awards, 2011-2012
Outreach, 2011-2016
Medical Physics Advisory Committee (2010)
Awards Committee (2010-2011)
Outreach Committee (2010-2011)
Publication Committee (2010-2011)
Graduate Recruitment Committee (2010-2011)
Awards Committee (2010-2011)
Long Range Strategic Planning Committee (2009-2010)
Outreach Committee (2009-2010)
Academic Advisor to the Class of 2007 (2004-2007)
Committee on Appointments and Promotions (01, 02, 03, 04, 05)
Chair of Graduate Recruitment & Publicity (00, 01, 02, 03, 04)
Member of Recruitment Committee (96, 97, 00, 01, 02, 03, 04)
Instructional laboratories (95, 96, 97, 98, 00, 01, 02)
Chair of Graduate Admissions (95, 96, 97)
Curriculum Committee (95)
Academic Advisor to the Class of 1998 (94-98)

College of Science Committees

Endowed Chair Professor Evaluation Committee (2016, 2017, 2018)
Web page Committee (2005)

Jordan Hall of Science **F**urnishings, **F**ixtures, **E**quipment (FFE)
Comm. for classrooms and common spaces (2005)
Selection of Business Manager for College of Science (2003)

University Committees

University Committee on Internationalization (2021-2024)
Laetare Medal Selection Committee (2021-2024)
International Programs Reviewer (2018)
Provost's Advisory Committee (2016-2019)
Provost's SPF and Research Faculty Promotion (2017)
College of Science Dean Search Committee (2014-2015)
University Committee on Internationalization (2012-2015)
VPR Evaluation Committee (2011-2012)
Provost's Committee on "Latin America" (2010-2011)
Provost's Committee on launching "Institute for Global Development" (2010-2011)
Limited Submissions Committee for the Office of Research (2011-2012)
Standing Committee of the Graduate School on NSF (2009-2010)
Graduate Council at University of Notre Dame (2009-2010, 96-98, 01-03)
Provost's Awards Committee (2007, 2006)
Selection Committee for Associate Vice President of Marketing, 2004
McNair Scholars Advisory Board (2002-2005)
Advisory Board for the Arts and Letters Science Honors Program, 2002
Subcommittee on Finance and Fundraising, 2001
Selection Committee of the Graduate School's Outstanding Research Award, 2001
Academic and Student Life Advisory Committee (elected 01, 02, 03, 04, 05)
Academic Affirmative Action Committee (98, 99, 00, 01, 02)
Committee on Women Faculty and Students (96-98)
Selection Committee for the appointment of V.P. of Research and Dean of the Graduate School (96)
Provost's Review Panel for Appeals Concerning Sexual Discrimination (94-96)
Executive Committee of the Distinguished Visiting Faculty
Radiation Control Committee (94-2001)
Luce Professorship - Search Committee (94/95)
Graduate School Liaison for the recruitment of minorities for the Physics graduate program (94-05)
Campus Climate Subcommittee (93-94)
Cultural Diversity (93-96)
Academic Life Committee for the Colloquy 2000 (92-93)
Colloquy 2000 (92-93)

Cross-College/Department/Interdisciplinary Interactions

College of Engineering Energy Center collaboration
Board of RTUVT Medical Physics Program (2014-present)
Isotopes project with SPECTRON (2008-2012)
Center for Social Concerns – Urban Plunge
-- Alternative Energy group
Research in the feasibility of Hydrogen Fuel Cells in the Michiana Area
Zhelun Li (David), Mendoza College of Business (Accounting)
James Brown, Mendoza College of Business (Marketing)
Co-Organizer of "Climate Change and the Common Good: Security, Sustainability, and Policy"
April 8-10, 2013, Notre Dame

Significant Initiatives as Physics Department Chair

1. Tripled the number of Physics majors (from an avg. of 11 to 32)
2. Increased the number of graduate students by 25%
3. Launched PR magazine to publicize faculty/research of Physics Department at Notre Dame (**Interactions**)
4. Open Doors of the Physics Department (events every month to publicize physics on and off-campus in the Michiana Area)
5. Garnered funds to renovate the physics building
6. Garnered funds to build common meeting areas in the department to enhance collaboration/communication

Dissertations

Ph.D.

Armine Grigoryan, Ph.D.
"The development of 64Ga for nuclear medicine"

Antranik Manukyan, Ph.D.
"The 18 MeV cyclotron and 18F production in Armenia"

Stefania Dede, Ph.D.
"Neutron capture cross sections of 243Am up to 1 MeVat DANCE"

Jordan Roach, Ph.D. **(May, 2023)**

Bryce Alan Frentz, Ph.D. **(June 1, 2022)**
"An Investigation of the Astrophysically Important $^{14}N(p,\gamma)^{15}O$ reaction"

Sabrina Strauss, Ph.D. **(February 18, 2020)**
"Conversion Electrons in $^{154,156}Gd$"

Kevin Siegl, Ph.D. **(November 15, 2019)**
"Impact of Precise β-Decay Information on Trapped Ion β-Delayed Neutron Spectroscopy"

Clark Casarella, Ph.D. **(March, 2017) May 2017 Graduation**
"Lifetime Measurements and the Feasibility of Vibrational Phonon Configurations in Deformed Rare Earth Nuclei"

Mallory Smith, Ph.D. **(July, 2016) May 2017 Graduation**
"Chasing Triaxiality: Probing Nuclear Structure near A=110"

Armen Gyurjinyan, Ph. D. **(June, 2016)**
Nuclear Science Laboratory at Notre Dame Jointly with Alikhayan National Science Laboratory
"Studying atomic nuclei based on symmetry and cluster models"

Anthony Battaglia, Ph.D. **(May 2015)**
"Conversion coefficient measurements of ^{176}Lu using iceball"

Brian Bucher, Ph.D. **(May 2014)**
"On the production of the light heavy elements"

Sergio Almaraz-Calderon, Ph.D. (Sept. 2011: Graduated **May 2012)**
"Study of Resonance Reactions in light nuclei for nuclear astrophysics"

Mathew Quinn, Ph.D. (**May 2010**)
"Beta-Decay Half-lives of Neutron-Rich Isotopes in the Ge-Br Region"

Boris Skorodumov, Ph.D. (**May 20, 2007**)
"Resonance Reactions Induced by Light Radioactive Beams"

Plamen Boutachkov, Ph.D. (**May 15, 2005**)
Co-winner of 2005 Physics Department **Outstanding Dissertation Award** entitled "Toward Understanding of the Nuclear Force via Detailed Spectroscopy of ^{208}Bi and Development of New Techniques for Studies of Neutron Rich Exotic Nuclei: Spectroscopy of ^{7}He"

Shelly Lesher, Ph.D. (**May 2004**)
Co-director at University of Kentucky

Rob Catharinus de Haan, Ph.D. (**November 16, 2001**)
"K=0^{+} Excitations in Deformed Nuclei"

Susan M. Fischer, Ph.D. (**December 1, 1994**)
"Spectroscopic Studies of the ^{195}Au Nucleus" Recognized as **most outstanding Ph.D. dissertation** at graduation May 1995.

Xiang Wu, Ph.D. (**January 14, 1994**)
"Investigations of Multi-phonon Vibrational States in Deformed Nuclei"

M.S.

Ashabari Majumdar, M.S. (December 2022)

Nancy Paul, M.S. (December 2014)
"Trapping Radionuclides for the r-process"

Adam Cummins, M.S. (ESTEEM, 2010)
"A new medical diagnostic tool"

Samuel Brett, M.S., University of Surrey, UK (2010)
"Sensitivity Studies of nuclear masses for the r-process"

Timo Griesel, M.S. (Diplome) (December 1, 2005)
"Isomers in the rp-process: Waiting points ^{68}Se and ^{64}Ge"

Artur Teymurazyan, M.S. (January 4, 2003)

Kelly Vaughan, M. Phys. (May 2003), University of Surrey, United Kingdom

Jose Luis Galache, M. Phys. (May 2002), University of Surrey, United Kingdom

Victoria Barnard, M. Phys. (May 2001), University of Surrey, United Kingdom

Honnavalli S. Santosh, M.S. (July 28, 1997)

B.S.

Anna Susalla, Physics, **Outstanding Research Award** (May 99)

Nathan Cuka, **Physics Honors Thesis** (May 96)
"Mass and B(E2:$2^+ \rightarrow O^+$) Transition Probability Predictions for the A=80 Region of Nuclei with the N_pN_n Scheme", Recognized as one of two **most outstanding honors thesis** projects at graduation.

Ana Delia Becerril, UNAM, Mexico City, Mexico (2004)

Nancy Paul, **Physics Honors Thesis** (May 2012)

Michael Robbe, Physics Honors Thesis (May 2014)
"Theoretical Assessment of the Viability of Implementing Cyclotrons in Large-Scale Production of ^{99m}Tc".

Patrick Fasano, Physics Honors Thesis (May 2016)
"Nuclear Lifetime Measurements with the Notre Dame Plunger and Low Cost Electronics"

Christina Dulal, Senior Thesis (May 2021)
"Understanding how path dependency connects politics and healthcare through the analysis of nuclear medicine in Armenia and in the USA"

Current Graduate Students

Noah Cabanas

Stefania Dede

Kevin Lee

Jordan Roach (jointly with Chemical Engineering Department)

Postdoctoral Fellows Supervised

Dr. Timothy Johnson (9/94 – 4/96), presently working in industry

Dr. Joachim Doering (9/96 – 9/98), at GSI

Dr. Stuart Vincent (10/98 – 5/00), UK Naval Academy

Dr. Mark Shawcross (9/00 – 4/02), UK Patent Office

Dr. Andreas Woehr (6/03-8/06), University of Saarlandes Hosp., Head of Radiation Safety (Germany)

Dr. Scott Marley (9/2012-8/2015)

Dr. Matthew Mumpower (9/2012 -8/2015)

Research and Visiting Faculty Supervised

Dr. Khachatur Manukyan (2014-present)

Dr. Henryk Mach (2012)

Dr. Rebecca Surman (2011, 2012)

Dr. Shelly Lesher (2010, 2011)

Dr. Wanpeng Tan (2007-present)

Dr. Henryk Mach (2006-2008)

Dr. Andreas Woehr (10/02 – 10/2006)

Dr. Grisha Rogachev (2/03 – 8/04)

Dr. Nina Demekhina (Armenia)

Dr. Anna Georgieva (Bulgaria)

Prof. Tsanka Venkova (Bulgaria)

Additional Mentoring

CANDAX-McNair Research programs for minorities in Science and Engineering (summers of 92-93)

92 Alicia Webb
93 Diedre Pinkney
95 Antwan Pinckney

Minority students in the colleges of science and engineering

89-93 Kelli Barber (class of 93): Now a medical doctor
89-93 Gregory Crowley (class of 93): Now a business enterpreneur
92-94 Sherida DuBoise (class of 94)
18-present Christina DuLal (class of 2021)

Research Experience for High School Teachers

00 Kevin Johnston, Jimtown High School, Indiana
01 Kevin Johnston, Jimtown High School, Indiana
02 Kevin Johnston, Jimtown High School, Indiana
03 Kevin Johnston, Jimtown High School, Indiana

Undergraduate Research-Academic Year

92 Robert Winarski
Jose Maria Castro Ceron
93 Ken O'Hara
94 Nathan Cuka
Alejandro Gadala-Maria
95 Nathan Cuka
Alejando Gadala-Maria
Eric Snyder
Anna Susalla
Shelly Lesher
96 Shelly Lesher
Anna Susalla
Arthur Cunningham
Eva Rzepniewski
97 Arthur Cunningham
Anna Susalla
Shelly Lesher
98 Anna Susalla
Shelly Lesher
99 Anna Susalla
Shelly Lesher
00 Mathew Quinn
01 William Lahnemann
02 Dominic Antonelli
Eric Chitambre
03 Shelece Easterday
Paul Strycker
Daniel Wasikowski
Graham Konecki
Krystie Traudt
05 Krystie Traudt

	Jonathan Poelhuis
08	Nancy Paul
	Anamaria Baluyut
	Andrew J. McGauley
	Fred Jung
08	Nancy Paul
	Fred Jung
09	Kailin Lou
	Fred Jung
	Nancy Paul
	Nicholas Anderson
	Holden Lombard
10	Nancy Paul
	Fred Jung
	Holden Lombard
	Julie Cass
	Giusseppe Passucci
	Kailin Lou
	Sean Pennino
11	Julie Cass
	Mike Harrison
	Sean Howard
	Holden Lombard
	Giusseppe Passucci
	Nancy Paul
	Michael Robbe
	Daniel Winnike
12	Holden Lombard
	Patrick Fasano
	Michael Robbe
	Zhelun Li
	Kaykay Nyong Essien (Hesburgh Yusko Scholar)
	Trenton Kuta
	Tim khouw
14	Patrick Fasano
	Michael Robbe
	Trenton Kuta
	Timothy Khouw
	Kevin Lee
	Trevor Sprouse
15	Andre Bermudez Perez – ND Electrical Engineering
	Patrick Fasano – ND Physics
	Benjamin Guerin – ND Physics
	Timothy Khouw – ND Physics
	Trenton Kuta – ND Physics
	Kevin Lee – ND Physics
	Ethan Sauer – ND Physics
	Trevor Sprouse – ND Physics
16	Anne Stratman – ND Physics
	Patrick Fasano – ND Physics
	Benjamin Guerin – ND Physics
	Trenton Kuta – ND Physics & Electrical Engineering
	Kevin Lee – ND Physics

Sam Porter – ND Physics
Mark Radell – ND Physics
Ethan Sauer – ND Physics

17 Anne Stratman –ND Physics
William S. Porter – ND Physics
Mark Radell – ND Physics
Ethan Sauer – Research Assistant
Kevin Lee- Research Assistant

18 Anne Stratman –ND Physics
William S. Porter – ND Physics
Christina Dulal – ND Physics
Diego Garcia – ND Physics

19 Christina Dulal
Jacob Galden (Chemical Engineering
Laura Richter (Art History)
Martin Meier (U of Wisconsin LaCrosse)

20 Jack Enright (U of Cork, UK)
Zarif Rahman (U of Wisconsin – LaCrosse)
Christina Dulal (ND Biology)
Peter Guerra (ND Physics)

21 Christina Dulal (ND Biology)
Peter Guerra (ND Physics)
Sarah Chapman (ND Physics)

22 Peter Guerra (ND Physics)
Sarah Chapman (ND Engineering)
Beatriz de Campos: ND Physics major
Raj Chilkuri; ND physics major
Konstantin Bauer: ND physic major
John Read: University of Wisconsin LaCrosse
Michael Mlodzik: University of Wisconsin LaCross
Alina Bennett-Dubin: Binghamton University (REU)
Benjamin Almquist: University of Vassar (REU)

Summer Research Opportunities for Undergraduates (REU program)

92 Jose Maria Castro Ceron – ND
93 Kenneth O'Hara – ND
94 Rachel Fricke
95 Israel Owens
95 Nathan Cuka – ND
96 Laura Glennie
97 Anna Susalla
98 Shelly Lesher
99 Mathew Quinn
00 Annette Villa
01 William Horowitz
02 Paul Strycker
02 Brian Hirsch
03 Jaime Wallace
04 Lara Street (winner of Goldwater Scholarship/Rhodes Scholar in 2005)
05 Beverly Lau
09 Raul Chavarria – FIU
Nancy Paul – ND

Fred Jung – ND
10 Nick Anderson – ND
Fred Jung – ND
Nancy Paul – ND
Patrick Copp – U Wisc. LaCrosse
Xao Lor – U Wisc. LaCrosse
11 Andrew Arend – U Wisc. LaCrosse
Nancy Paul – ND
12 Michael Robbe – ND
Daniel Winnike – ND
13 Bryce Frentz – Concordia College
Zachary Tully – U Wisc. LaCrosse
14 Patrick Fasano – ND
Timothy Khouw – ND
Trevor Sprouse – ND
Kevin Lee – ND
Luis Abrego - UNAM
Andre Bermudez Perez – ND Elect. Engineering
Trenton Kuta – ND Elect. Engineering
Marcus Lowe – U Wisc LaCrosse
15 Patrick Fasano (Hichwa summer fellowship)
Benjamin Guerin (private funds: Aprahamian)
Trenton Kuta (private funds: Aprahamian)
Kevin Lee (COS)
Ethan Sauer (COS)
Trevor Sprouse (COS)
16 Carter Hughes (U of Wisconsin- LaCrosse)
William Samuel Porter (ND- Physics)
Mark Raddell (ND-Physics)
17 Anne Stratman (ND- Physics)
William S. Porter (ND-Physics)
Mark Raddell (ND – Physics)
18 Anne Stratman (ND-Physics)
William S. Porter (ND-Physics)
Diego Garcia (ND-Physics)
Christina DuLal (ND-Physics)
Leah Clark (REU: U of Wisconsin-LaCrosse)
Martin Meijer (REU: U of Wisconsin-LaCrosse)
19 Jack Enright (Ireland)
Zariff Rahman (U of Wisconsin LaCrosse)
Lexanne (Lexie) Weghorn (U of Wisconsin LaCrosse)
Jacob Galden (ND- Chemical Engineering)
Christina Dulal (ND- Physics)
20 Christina Dulal
21 Sky Bela (Lehigh University)
Peter Guerra (ND)
Michael Ryan (U of Wisconsin LaCrosse)
Hannah Bechtel (U of Wisconsin LaCrosse)
Sky Bela (LeHigh Univ)
Brecca Bettcher (U of Wisconsin LaCrosse)
22 Konstantin Bauer (ND- Sophomore)
Peter Guerra (ND-Senior)

Beatriz de Campos Silva (ND-Junior)
Raj Chilkuri; ND physics major
John Read: University of Wisconsin LaCrosse
Michael Mlodzik: University of Wisconsin LaCross
Alina Bennett-Dubin: Binghamton University (REU)
Benjamin Almquist: University of Vassar (REU)

Orientation Program for Entering Freshmen (1990-present)

Summer Minority Engineering Program (Prof. McComas, Director)

Introductory Physics lectures for two sessions each summer

92 "Don't Worry, Be Happy"
93 "A Career in Physics"
94 "Is Physics for You?"
96 "What's New in Physics?"

Guest Lecturer for Gender in Science Studies

October 30, 96	"Scientist, warriors, and sexual language"
February 5, 97	"Molding of a scientist"
October 17, 97	Philosophy 232, "Women: Alternative Philosophical Perspectives"
October 17, 97	Philosophy 354, "Gender and Science: What Kind of Enterprise Is Science?"
October 12, 98	Philosophy 232, "Women in Science"
October 8, 01	Philosophy 232, "A Woman Scientist in Charge" APS Panel

Other lectures or panels

April 3, 2021	Panel on "HVow can Education, Science, and Technology be modernized in Armenia?" Profs. Aprahamian (ND), Hovakimyan (U of IL, Urbana-Champaign), Nazarian (Harvard U Medical School), and Papazian (President of San Jose State University) moderated by Prof. Bogosian (Tufts University).
April 27, 2018	Women in Science Panel hosted by Development and College of Science
March 20, 2018	ND ENERGY panel for Graduate Students, Notre Dame, IN
Feb. 2, 2010	"Culture and Diversity in the Classroom", Kaneb Center Workshop for International TAs
Aug. 18, 2010	"International Perspective on being a TA", Kaneb Center Orientation for International Students
Oct. 10, 2002	"Being a Woman Nuclear Scientist: Option after a Ph.D." DNP Meeting, East Lansing, MI

Summer Schools in Nuclear Science

Pan-American Advanced Studies Institute on Rare Isotopes, Joao Pessoa, Brazil, August 1-13, 2010

Rare Isotope Accelerator Summer School, East Lansing, MI, August 11-15, 2007

American Chemical Society summer school on Nuclear Chemistry
Brookhaven National Laboratories, Upton, NY, June 26, 2003

Lecture 1: "Stardust: We are all made of Stardust"
Lecture 2: "Why our sun takes billions of years to burn up instead of minutes"

"Cosmology: What We Learned in 111 Years," Armenian Church of the Martyrs Anniversary Banquet, Worcester, MA (October 5, 2003)

Student Life at Notre Dame

November 3, 2003	"Women professionals: How to Balance Life, Work, Family," McGlinn Hall
September 17, 2003	Participant in the "Irish Inquisition" sponsored by ND Student Government
December 2, 2004	Discernment Dinner for Walsh and Dillon Halls
August 2005-May 2006	Residential Scholar to St. Edwards' Hall
June 27, 2006	"How I became a nuclear physicist," lunch talk to Sensing Our World program of middle school children. Sponsored by JINA and the College of Science at the University of Notre Dame.
July 17, 2006	"Life of a scientist," talk, Balfour Scholars Program, University of Notre Dame
April 4, 2007	"What does the light from stars tell us?" Collegium Common Room Lecture
2008 - 2010	Residential Scholar Program, Fellow of Collegium Common Room
September 16, 2009	"Research: Who pays for it, How?" ND Physics Junior Seminar
February 7, 2011	"How to choose a career", discernment dinner (Fisher-Pangborn)
April 19, 2011	"Science Play" open questions in Nuclear Science and Society, Prof. Phillips class
September 26, 2012	"The Future of Energy and Energy Technologies" Center for Social Concerns Energy Policy group
September 29, 2012	"Scientific Leadership" Jordan Hall of Science – Leadership Class by Dean Crawford
October 3, 2012	"What is nuclear physics all about" Junior Physics Majors
January 27, 2013	Urban Plunge Discussion –Center for Social Concerns
Feb. 20, 2013	"How to talk to different communities" Career Development seminar for graduate students, ND
July 27, 2013	"Journey across continents and disciplines: The Origin of the Heavy Elements", pre-college Leadership Seminar, ND.
November 7, 2013	"At the heart of Matter", Nuclear Physics decadal study and where the Nuclear Science Laboratory at Notre Dame fits in.
March 28, 2014	Discernment evening with Freshman at home.
April 10, 2014	Scientia conversations, Nuclear Science and Society.

Outreach and Education (High School)

2010 In order to encourage students to enter college into STEM disciplines, I have taken the initiative to adopt a local high school starting at 9th grade level with annual meetings.

Washington High School in South Bend, IN

2011 Washington High School Astronomy Students at ND, January 27

2011 **Washington High School, Expand Your Horizons at Notre Dame, Career Day for Girls, April 30**

2013 **Science Alive networking with educators/exhibitors, February 1**

Siemens Science Competition invited lecture, November

2014 Davis-Bahcall Scholars Lecture on Underground Science, Lead, SD, June 20

Physics of Atomic Nuclei Lectures, June 25

"Popular" Press

16. Ted-X, Nov. 12, 2021

15. "***Ani Aprahamian***", ***A Piece of Armenia*** is a weekly program on Public TV 1, dedicated to the lives of diaspora Armenians, Dec. 26, 2020, *https://youtu.be/oaq6_-co9o0*

14. "***Atoms, Stars, and You***", a general educational publication of the Science Academy of Armenia, June, 2020 (in Armenian).

13. "Ani Aprahamian", interview on ***Past midnight*** show on public TV, Channel 1, Book exchange and interview

12. "***Science Technology and Education in Armenia***", youtube: https://youtu.be/oaq6_-co9o0, Ararat Eskidjian Museum, January 12, 2020.

11. Livestream: JINA-CEE LIGO VIRGO talks and Panelist Discussion: https://www.youtube.com/watch?v=CxxmaLx-4e0, December 1, 2017.

10. "Nuclear Scientist and World Citizen?" Chapter in an on-line book entitled "Blazing the Trail: Essays by leading women in Science"on the lives and experiences of Women in Physics in the USA, Aprahamian chapter "**Physicist as a Cosmopolitan Citizen**", 2013

9. Forum on International Physics, March 2011 Newsletter: Physics in the Republic of Armenia", A. Aprahamian.

8. Physics and Society: "Isotopes for the Nation's Future", D. Geesaman and A. Aprahamian, April 2010. (Vol. 39, No. 2)

7. Nature Physics: "Nuclear physics: Long live isomer research," A. Aprahamian and Y. Sun, Nature Physics 1, news & views, 81-82 (2005).

6. Physics at University of Notre Dame: History and Introduction **(Physics Department Brochure (2005)**.

5. Interactions I and II: Journal of Physics Fall 2004 and Fall 2005.

4. Nuclear Physics News International: "Women in Physics," Vol. 13, No. 3 (2003).

3. Physics World: "Nuclear Astrophysics: a new era," Physics World, 33 (2002).

2. Nuclear Physics News International: Portrait of Nuclear Physics at Notre Dame, Vol. 12, No. 4 (2002).

1. Physics Today **46**, 3, 85 (1993); "Harriet Brooks: Pioneer Nuclear Scienctist", https://doi.org/10.1063/1.2808845

Invited Talks
(International and National Conferences, Seminars, Colloquia)

2022-23 Invitations that were refused:

1. Invited speaker to International Conference on "100 Years of Isomers", Berlin, Germany, May 2-4, 2022.
2. Invited speaker to International workshop on "Nuclear Isomers in the era of FRIB", East Lansing, MI, May 9-20, 2022.
3. Invited speaker to the 10th International workshop on quantum phase transitions in nuclei and atomic systems, Dubrovik, Croatia, July 11-15, 2022.
4. Invited speaker to the 10th International meeting on Nuclear Physics in Astrophysics, CERN, Switzerland, September 5-9, 2022.
5. Invited speaker to the Intrnational Conference PUMA22 Probing the Universe with Multimessenger Astrophysics, Sestri Levante, Italy, September 26-30, 2022.
6. 18th Russbach nuclear astrophysics school, Russbach, Austria, March 12-18, 2023.

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272. "The promise of Modular Nuclear Reactors", **invited talk**, virtual, Workshop on Modular Nuclear Reactors, funded by the ISTC, AANL, February 1, 2023. Working languages of the workshop were in English and Armenian.

271. "Dynamics in Nuclei", **invited talk**, 44th Symposium on Nuclear Physics, Cocoyoc, Mexico, January 10, 2023.

270. "The Next 4 Years", **invited talk** seminar, Nuclear Science Laboratory, University of Notre Dame, December 5, 2022.

269. "Science Applications with Isotopes", **invited talk**, seminar, Department of Chemistry and BioChemistry, University of Notre Dame, Notre Dame, IN, November 29, 2022.

268. "From the Beginning to Now", **invited talk**, Traektoria Astrophysics School, A. Alikhanyan National Science Laboratory of Armenia, Yerevan, Armenia, August 8, 2022. https://youtu.be/dPVBnGjeNBY

267. "Nuclear Energy for health, wealth, and security in Armenia", **invited public seminar**, STARMUS VI: 50 years on MARS, STARMUS is a global festival of science communication and art, Science Camp, Opera Square, Yerevan, Armenia, September 8, 2022.

266. "New Directions enabled by the C-18 Cyclotron- Lectures 1, 2, and 3", **invited seminars**, A. Alikhanyan National Science Laboratory of Armenia, Yerevan, Armenia, July 22, July 28, August 4, 2022.

265. "Diaspora-Armenia engagements: Past Challenges and Future Opportunities", **invited talk**, conference on the launch of Armenian Society of Fellows, San Lazarro, Venice, Italy, June 26, 2022.

264. "Proposal for a Regional ICTP Center in the Caucasus (Armenia), **invited seminar**, International Center for Theoretical Physics, Trieste, Italy, June 23, 2022.

263. "*Will Armenia realize its potential in delivering advances in the fundamental sciences while developing an ecosystem for high technology innovations?",* **Invited Plenary talk**, International Symposium on Passion for Science: Facing Global Challenges, Villa Monastero, Varenna, Italy, June 20, 2022. https://www.facebook.com/watch/?v=1115708579015219

262. "Armenia Marching Forward: Transforming AANL into An Innovation and Technology HUB", **invited talk**, ARPA 30th Anniversary Workshop, Los Angeles, CA, June 11, 2022. https://www.facebook.com/watch/?v=5923252684357592

261. "Nuclear Structure Experiment I and II"**, two invited talks**, Exotic Beam Summer School, University of Notre Dame, Notre Dame, IN, June 8 and 9, 2022.

260. "Introduction and Welcome to JINA-CEE Frontiers", **opening**, South Bend, IN, May 26, 2022.

259. "FRIB Project Reflections and Expectations", **invited talk**, FRIB ribbon cutting celebrations, East Lansing, MI, May 2, 2022.

258. "The evolution of baryonic matter from the 3rd minute to the present", **colloquium**, Hunter College, NYC, on zoom, April 27, 2022.

257. "Education and Outreach Info Center with Joint Institute of Nuclear Reactions", **invited talk**, Yerevan State University, Yerevan, April 15, 2022.

256. "Development of Fundamental Sciences in Armenia and relations with Joint Institute of Nuclear Reactions (JINR), Dubna, Russian Federation", invited talk, Armenian National Academy, Yerevan, April 14, 2022.

255. "Այսօր՝ զարգացած գիտություն, վաղը հզոր պետություն**"**, **invited talk**, Public schools of Armenia, virtual, March 19, 2022. https://youtube.com/watch?v=BwPAoYmvHSM&feature=shares

254. "A Novel Technique for the Production of Robust Actinide Targets", **invited talk**, National Nuclear Security Agency Stewardship Science Academic Programs Symposium, virtual on-line, February 15, 2022.

253. "What research is enabled in a 1000-Class cleanroom?", **invited talk**, online/facebook with Over 3000 listeners, Analysis Research & Planning for Armenia (ARPA), Feb 5, 2022.

252. "The Evolution of Baryonic Matter from the 3rd minute to the present", **invited talk**, 50th anniversary of IN2P3 Symposium, Paris, France, Dec. 10, 2021.

251. "Oxygen, Covid, and Armenia", **Keynote speaker** at the Armenian American Medical Society, 35th anniversary Gala, Sheraton Universal, Studio City, CA, Nov. 20, 2021.

250. "Determination conquers all", **invited talk**, *Once upon a Science…*TEDx Yerevan, Nov. 13, 2021.

249. "Nuclear Medicine in Armenia", 13th Armenian Global Medical Congress, zoom, Nov. 7, 2021.

248. "Science, Innovation and Entrepreneurship" **invited panelist**, Digital Week in Yerevan,

Armenia (Nov. 1, 2021). Launched in 2005, Digitec is the largest technological exhibition in the trans-Caucasus region, and the annual marquee event for Armenian technology.

247. "A. Alikhanyan National Science Laboratory of Armenia", **invited opening talk**, at the 5thConference on Modern Problems of Genetics, Radiobiology, Radioecology, and Evolution, dedicated to the 120th anniversary of the birth of N.W. Timofeeff-Ressovsky, GRRE21 Oct 5-9, 2021, Yerevan, Armenia, Oct. 5, 2021.

246. "Open Challenges to Nuclear Physics from GW170817", **invited talk**, International Conference on The Modern Physics of Compact Stars and General Relativity, Yerevan, Armenia, Sept. 30, 2021.

245. "Big Science Question in Nuclear Astrophysics", **invited talk**, Underground Science Roundtable, zoom, Sept. 14, 2021.

244. "Challenges to Nuclear Physics and the two-neutron star merger", **invited talk,** The American Chemical Society's Glenn T. Seaborg Award Symposium held in Atlanta, GA, August 22-26, 2021.

243. "New Elements? Chemistry and/or Physics", **invited talk,** IUPAC General Assembly meeting (Div. II), August 9, 2021 (on zoom).

242. "The Birth and Death of Stars and the role of the Nuclear Science Laboratory at Notre Dame", **invited seminar,** FRIB/NSCL Summer virtual seminar series, July 7, 2021.

241. "Nuclear Isotopes and Medicine", **invited seminar**, Research Experience for Undergraduates, Notre Dame, coupled with visit to AZI, June 29, 2021.

240. "The National Laboratory Concept: Armenia Marching Toward the Future", **invited seminar**, Armenian Engineers and Scientists in America, April 11, 2021 (on zoom).

239. "How can Education, Science, and Technology in Armenia be Modernized?", **invited ARPA Panelists**: A. Aprahamian, U of Notre Dame, M. Papazian, San Jose State University, A. Nazarian, Harvard Medical school, B. Boghosian, Tufts University, Naira Hovakimyan, U of Illinois, April 3, 2021 (on zoom).

238. "Nuclear Medicine", **invited talk**, The **Armenian** Medical International Committee (**AMIC**), Armenian Association of Radiologists, and Armenian Medical Alliance, virtual zoom, September 5, 2020 (on zoom).

237. "COVID 19: Epidemiology, combat, & comparison", **invited seminar**, Nuclear Science Laboratory, Notre Dame, IN, August 17, 2020 (on zoom).

236. "A Novel Technique for the Production of Robust Actinide Targets", invited talk, Stewardship Science Alliance Symposium, Washington DC, February 26, 2020.

235. "Realizing the High-Tech Potential of Armenia with the Missions of AANL", **invited seminar**, World Bank Office in Armenia, Yerevan, Armenia, February 6, 2020.

234. "Focus on Fission: GW170817 and Nuclear Physics Experiments", **invited seminar**, Lawrence Livermore National Laboratory, Livermore, CA, Jan. 16, 2020.

233. Where in the world is Armenia and What is Ani doing there", **invited public lecture**, Armenian Church of the Martyrs, January 5, 2020.

232. "Where in the world is Armenia, and What is Ani doing there?", **seminar**, Nuclear Science Laboratory, Notre Dame, IN, Nov. 4, 2019.

231. "The Witch, the Scientist, and Enabling Change", **seminar**, Association for Women in Science, Notre Dame, IN, October 31, 2019.

230. "Nuclear Science in the Era of Multi messenger Astrophysics", **Colloquium**, Department of Physics and Astronomy, Purdue University, West Lafayette, IN, Oct. 10, 2019.

229. "A. Alikhanyan National Laboratory of Armenia: What does it mean to be a National Laboratory?", **Invited talk**, National Assembly of the Government of Armenia, Yerevan, Armenia, Sept. 27, 2019.

228. "Nuclear and Cosmic Ray Science in Armenia in the Age of Multi-messenger Astrophysics", **invited plenary talk**, 60th Anniversary Celebrations of the Physics Faculty, Yerevan State University, Yerevan, Armenia, Sept. 25, 2019

227. "Armenia Stepping into the Future at AANL", **invited talk**, Optics 2019 International Conference, Yerevan, Armenia, Sept. 22, 2019.

226. "High Precision Mass Measurements of Nuclei and the Neutron Star Merger", **invited plenary talk**, Nuclear Physics in Astrophysics IX, Castel Waldthausen, Frankfurt, Germany, Sept. 17, 2019.

225. "High Precision Mass Measurements and the Neutron Star Merger GW-170817", **invited talk**, XXXVI Mazurian Lakes Conference on Physics, Piaski, Poland, September 2, 2019.

224. "ARUNA: Nuclear Physics at University Laboratories, new developments and future perspectives", **Invited talk,** Low Energy Community Meeting, Duke University, Durham, NC, August 8-9, 2019 (August 7, 2019).

223. "The A. Alikhanyan Laboratory of Armenia and Nuclear Science", **invited talk**, IUPAP Working group 9 meeting at the Notre Dame London Global Gateway, London, UK, August 3, 2019.

222. "Explosive Scenarios in Astrophysics: Observations, Models, and Nuclear Physics", invited plenary talk at the International Nuclear Physics Conference, Glasgow, Scotland, July 29-August 2, 2019.

221. "Armenia Stepping into the Future: The Cylone 18 and more", **Seminar**, Physics Department, Yerevan State University, Yerevan, Armenia, June 20, 2019.

220. “The origin of gold in the universe and the neutron star merger”, invited talk, International School on Optics and Photonics, Russian-Armenian University, Yerevan, Armenia, July 1-7, 2019.

219. “Armenia Stepping into the Future: The Cyclone-18 and more”, invited Seminar, Physics Department, Yerevan State University, Yerevan, Armenia, June 20, 2019.

218. “The Evolution of Stars, Science and Nuclear Medicine”, invited plenary talk, International Conference on Nuclear and Radiation Physics of Materials, Yerevan, Armenia, June 17, 2019.

217. Keynote speaker at graduate commencement of American University of Armenia, Yerevan, Armenia, June 8, 2019.

216. “High Precision Mass Measurements and the Neutron Star Merger”, invited seminar, University of Vienna, Austria, June 6, 2019.

215. “Superheavies and the r-process”, invited talk, International Symposium on the Present and Future of the Periodic Table of Elements, Dubna Joint Institute of Nuclear Research, Russia, May 31, 2019.

214. “Alikhanyan Back to the Roots: Neural Networks and Machine Learning”, invited talk, workshop on “A Life Scientific: Science, Teaching, Management” in honor of 70th birthday of Prof. Ashot Chilingaryan, Nor Amberd, Armenia, May 17-18, 2019.

213. Appearance as sole guest on TV show dedicated to special personalities in Armenia, Half Past Midnight, May 10, 2019.

212. “Nuclear Physics Experiments and the Neutron Star Merger”, invited talk, workshop on r-process sources in the universe, Arizona State University, Tempe, Arizona, March 31, 2019.

211. “What is the Role of Nuclear Physics Experiments?”, Invited talk, 16th annual Russbach School on Nuclear Astrophysics, Russbach, Austria, March 15, 2019.

210. “Nuclear Energy: Role of Nuclear Physics Experiments”, Notre Dame Energy Center Luncheon, Notre Dame, IN, Nov. 29, 2018.

209. “Nuclear Physics and Colliding Neutron Stars: The origin of gold in the universe?”, EMMI Science Day Featured GSI Colloquium, Darmstadt, Germany, Nov 20, 2018.

208. “Colliding Neutron Stars: The Origin of Gold?”, joint Physics and Nuclear Engineering colloquium, MIT, Boston, MA, Nov. 7, 2018.

207. “Science, Technology, and Education in Armenia”, invited talk, sponsored by MIT Armenian Society, National Association for Armenian Studies and Research, and Calouste Gulbenkian Foundation Series on Contemporary Armenian Issues, MIT, Boston, MA, Nov 6, 2018.

206. “The Electron Ion Collider: NRC consensus report on the science of the EIC”, invited talk, DNP business meeting, October 27, 2018.

205. “The role of nuclear physics experiments in the Era of Neutron Star Merger observations”, invited talk, Workshop on r-process in the Era of Merger observations, 5th joint meeting of the Divisions of Nuclear Physics of the American Physical Society and the Japanese Physical Society, Hawaii, October 23, 2018.

204. “The National Ignition Facility and the Origin of the Heavy Elements”, invited talk, LLNL workshop on Nuclear Processes in Dense Plasmas, Livermore, CA, July 30, 2018.

203. “Crucial experiments for a better understanding of the r-process”, invited talk, ARIEL days, TRIUMF, Vancouver, Canada, July 18, 2018.

202. “The Science Assessment for an Electron Ion Collider”, invited talk, JLAB Users Meeting, JLAB, Newport News, VA, June 18, 2018.

201. “The Heavy Elements: Were they all made in neutron star mergers?” colloquium, Duke University, Durham, NC, May 16, 2018.

200. “Sensitivities and Measurements”, JINA-CEE International Advisory Committee presentation, Michigan State University, East Lansing, MI, May 8, 2018.

199. “Origin of the Heavy Elements: Are gravitational waves from neutron star mergers the answer?”, Hagopian family endowed colloquium, Florida State University, Tallahassee, FL, April 20, 2018.

198. “Gravitational waves: What is the implication to Nuclear Physics and the University of Notre Dame Nuclear Science Laboratory”, Colloquium and Undergraduate Research Symposium, James Madison University, Harrisonburg, VA, March 23, 2018.

197. “The r-process, gravitational waves, and nuclear physics” colloquium, Joint Institute of Nuclear Reactions, Dubna (Moscow Region), Russia, Feb. 9, 2018.

196. “Is the nucleus a normal quantum mechanical system?” colloquium, Physics Department, University of Guelph, Guelph, Canada, January 30, 2018.

195. “livestream JINA-CEE, LIGO, VIRGO Discussion on-line” , Dec. 1, 2017 https://www.youtube.com/watch?v=CxxmaLx-4e0

194. “Nuclear Physics and the r-process”, invited talk, Symposium on 50 years of Beam-Exploring the Nuclear Frontier, College Station, TX, Nov. 15-17, 2017.

193. “Nuclei in the Cosmos: Gravitational waves and their implications to Nuclear Physics”, invited talk, Pan Armenian Scientific Forum, Yerevan, Armenia, Nov. 6-8, 2017.

192. “Fundamental Oscillations of Deformed Nuclei”, invited plenary talk, LASNPA-WONP-NURT, 2017, Meeting of South American Physical Society, Havana, Cuba, Oct. 20-28, 2017.

191. “Nature of 0^+ Excitations in Nuclei”, invited talk, International Workshop on “Shapes and Dynamics of Atomic Nuclei: Contemporary Aspects, Sofia, Bulgaria, Oct 5-7 2017.

190. “Low Lying Oscillations of Deformed Nuclei”, invited talk, International Conference on Capture Gamma Ray Spectroscopy and Related Topics, Shanghai, China, Sept. 18-22, 2017.

189. “Stellar Helium Burning”, invited talk in place of Michael Wiescher, Gordon Conference on Nuclear Chemistry, Colby-Sawyer College, New London, NH, June 21, 2017.

188. “Nature of 0^+ states in Deformed Nuclei“, invited talk, International Conference on Advances in Radioactive Isotope Science (ARIS), Keystone, Colorado, May 30, 2017.

187. “Nuclear Physics in the Cosmos: Experiments on Earth”, Arbeitstreffen Kernphysik, Schleching, Germany, March 9, 2017.

186. “The evolution of Stars and the Synthesis of the Heavy Elements”, colloquium, University of Jyvaskyla, Finland, January 13, 2017.

185. “Nuclei as messengers of the Cosmos” colloquium, Nov. 28, 2016, North Carolina State University, Raleigh, NC.

184. “The life and death of stars: Nuclei in the Cosmos”, invited plenary talk, International Conference on Fission and Properties of Neutron Rich Nuclei, Nov. 6-12, 2016, Sanibel, Florida.

183. “Nuclei in the Cosmos: Experiments on Earth”, colloquium, Sept. 30, 2016, University of Wisconsin, Madison, WI.

182. “Vibrations or Coexisting Shapes? 0^+ states in Deformed Nuclei”, invited talk, Heavy Ion Accelerator Symposium 2016, Sept. 18-20, 2016, Australian National University, Canberra, Australia.

181. “The Nature of 0^+ states in Deformed Nuclei”, invited talk, International Nuclear Physics Conference 2016, September 11-16, 2016, Adelaide, Australia.

180. “Neutrons and the Origin of the Heavy Elements”, invited talk, “Program for the Neutron Nuclear Data Directions Into the Next Half Century”, August 5, 2016, Santa Fe, New Mexico.

179. “Connecting FRIB to the Cosmos: Measurements of Nuclear Input Parameters for the r-process”, invited talk, r-process workshop duration May 30-June 17, East Lansing, MI. I attended June 1-7, 2016.

178. “The origin(s) of the heavy elements in the universe and what Nuclear Physics has to say about it”, colloquium, Old Dominion University, Norfolk, VA, March 29, 2016.

177. "Individual nuclear properties and their impact on r-process nucleosynthesis", invited talk, Workshop on Nuclear Astrophysics, Russbach, Austria (March 6-12, 2016)

176. “Nuclear Science: Exploring the heart of matter, serving society, educating the next generation of innovators”, invited talk, Honolulu, Hawaii, ACS meeting of U.S. and Japan, Pacifichem, December 15-20, 2015.

175. “FRIB: The Facility for Rare Isotope Beams and the R-process”, invited talk, SPES Nuclear Astrophysics Workshop, Reggia di Caserta, Caserta, Italy, November 14, 2015.

174. “Stellar explosive Nucleosynthesis: interesting measurements that could be done at SPES”, invited talk, SPES Nuclear Astrophysics Workshop, Reggia di Caserta, Caserta, Italy, November 13, 2015.

173. “Can we use nuclear structure to constrain the sites of the r-process?”, invited talk, Reflections on the Atomic Nucleus, University of Liverpool, Liverpool, UK, July 28-30, 2015.

172. “Where is the site of the r-process”, invited talk, Nucleus-Nucleus 2015, University of Catania, Catania, Italy, June 21-26, 2015.

171. “Nuclear Science, Exploring the heart of matter, serving society, and educating the next generation of innovators”, keynote speaker at SigmaPiSigma event, Central Michigan University, April 9, 2015.

170. “Interfaces of Nuclear Astrophysics with Fundamental Symmetries”, invited talk, Fundamental Symmetries Town meeting, Chicago, IL, September 23, 2014.

169. “The Frontiers of Nuclear Physics in the 21st Century” invited talk, A. Aprahamian, Workshop on Thunderstorms and Elementary Particle Acceleration (TEPA-2014), Byuragan, Armenia, September 22-26, 2014.

168. “Setting Constraints on the r-process?”, invited talk, A. Aprahamian, International NUBA conference on Nuclear Physics and Nuclear Astrophysics, Antalya, Turkey, September 15-21, 2014.

167. “Following the light in the Universe”, invited talk, Physics of Atomic Nuclei lecture, Jordan Hall, Notre Dame, June 25, 2014.

166. “Pros/Cons of Underground science in the USA at SURF and in Italy at Gran Sasso”, invited talk, Davis-Bahcall scholars, Lead, South Dakota, June 20, 2014.

165. “Nuclei, the r-process, and Constraints”, invited talk, Nuclear Symmetries and Stewardship Science, Lawrence Berkeley National Laboratory, Berkeley, CA, May 1-2, 2014.

164. “Sensitivity studies for the main r-process: nuclear masses, beta decay rates, neutron capture rates in three astrophysical scenarios”, invited talk, Workshop in Nuclear Astrophysics, Institute of Advanced Studies, University of Sao Paolo, Sao Paolo, Brazil, April 14-16, 2014.

163. “Nuclear Science and Society”, Scientia conversations, Jordan Hall of Science, April 10, 2014.

162. “Isotopes for health, wealth, and stealth”, seminar, RTUVT, South Bend, IN, March 21, 2014.

161. “Sensitivities of the r-process: nuclear masses, beta decay rates, and neutron capture rates”, invited talk, XXXVIIth symposium on Nuclear Physics, Cocoyoc, Mexico, January 6-9, 2014.

160. “Our Story: Past, Present, Future and where does Nuclear Physics at Notre Dame step in?”, keynote speaker, Siemens Math, Science, & Technology Competition (Final round of regional competitions), Jordan Hall of Science, Notre Dame, IN, November 9, 2013.

159. “The heavy elements in the Cosmos”, colloquium, Manchester College, Manchester, IN, November 4, 2013.

158. “Journey across continents and disciplines: the origin of the heavy elements”, invited talk, Notre Dame Leadership Seminar, 101 Jordan Hall of Science, July 27, 2013.

157. “r-process mass sensitivities and the F-spin toy mass model in nucleosynthesis” invited talk, Heraeus-Seminar on ‘Nuclear Masses and Nucleosynthesis’ at the Physikzentrum Bad Honnef/Germany, April 23-26, 2013.

156. “Where are the heavy elements made in the Universe?”, seminar, Department of Physics, University of Wisconsin, LaCrosse, WI, April 3, 2013.

155. “Origin(s) of the Heavy Elements”, colloquium, Thomas Jefferson National Laboratory, Newport News, VA, March 13, 2013.

154. “Nuclear Structure and Mass Sensitivities for the r-process”, invited talk, Nuclear Data 2013, NY, NY, March 7, 2013.

153. “The heaviest elements in the universe…where did they come from?” colloquium, Illinois State University, Noble, IL, February 5, 2013.

152. “Extreme Matter and the Origin of the Heavy Elements”, invited talk, EMMI Physics Days, GSI Frankfurt, Germany, November 14, 2012.

151. “Origins of the Heavy Elements”, invited talk, CEU, Division of Nuclear Physics Meeting, Newport Beach, CA, October 29, 2012.

150. “Nuclear Structure and the r-process: Experiment and Theory”, invited talk, Beauty in Physics: Theory and Experiment, Conference in honor of Franco Iachello on the occasion of his 70th Birthday, Cocoyoc, Mexico, May 14-18. 2012.

149. “Sensitivities of the r-process to nuclear structure”, invited talk, IOP Nuclear Physics Conference, University of Brighton, Brighton, UK, April 2-4, 2012.

148. “Mass sensitivities of the r-process”, seminar, Physics Department, University of Surrey, Guildford, UK, January 12, 2012.

147. “Sensitivity of the r-process to masses”, seminar, Physics Division, Argonne National Laboratory, Argonne, IL, November 7, 2011.

146. “r-process Mass Sensitivities”, invited talk, CGS-14, Guelph, Ontario Canada, August 29, 2011.

145. “NP2010: Decadal Review of Nuclear Physics for the National Science Academies”, Super-User meeting, August 18, 2011, NSCL, East Lansing, MI.

144. “Nuclear Physics at the Frontiers”, invited talk, 45th Anniversary of Brazilian Physical Society, Foz de Iguazu, Brazil, June 8, 2011.

143. “Evolution of nuclear structure and its impact on masses for the p-process”, invited talk, Istanbul, Turkey P-process workshop, May 25, 2011.

142. “Setting Priorities and Articulating Grand Scientific Challenges in Nuclear Science”, invited talk, NIF workshop, Washington, DC, May 11, 2011.

141. “The frontiers and applications of Nuclear Science, what it could mean for Armenia”, invited talk, National Science Academy of Republic of Armenia, April 15, 2011.

140. “The Elements Beyond Iron and what Nuclear Physics has to say”, colloquium, Worcester State College, Worcester, MA, April 4, 2011.

139. “Women of Nuclear Chemistry and Exotic Beams” invited talk, Francis P. Garvin-John M. Olin Symposium in Honor of Sherry Yennello, March 28, 2011.

138. “Sensitivity of the r-process”, invited talk, r-process workshop, Russbach, Austria, March 12-19, 2011.

137. “r-process nucleosynthesis and nuclear masses”, invited talk, XXIV Symposium on Nuclear Physics, Cocoyoc, Morelos, Mexico, January 5, 2011.

136. “Isotope Production Policies”, invited talk, Radiological Technologies University VT, South Bend, IN, November 17, 2010.

135. “The Most Compelling Research Isotopes”, invited talk, Workshop on Harvesting Isotopes at FRIB, Santa Fe, NM, September 29-October 1, 2010.

134. “Isotopes: What is the fuss all about?”, seminar, University of Notre Dame Nuclear Science Laboratory, August 30, 2010.

133. “The origin of the heavy elements: What does Nuclear Physics have to do with it?”, invited speaker, Pan American Advanced Student Institute on Rare Isotopes, Joao Pessoa, Brazil, August 9, 2010.

132. “Isotopes for the Nation’s Future”, seminar, Rutgers University, Piscataway NJ, April 28, 2010.

131. “The Origin of the Heavy Elements”, colloquium, Rutgers University, Piscataway, NJ, April 28, 2010.

130. “In a Universe not so far away…”, colloquium, Catholic University of America, Washington, DC, March 31, 2010.

129. “Nuclear Physics at the Frontiers of Knowledge”, seminar, Physics Department, Yale University, New Haven, CT, February 23, 2009.

128. “Expanding Universe with Shrinking Budgets: What does that mean to planning your research?”, colloquium, Physics Department, University of Notre Dame, Notre Dame, IN , December 3, 2008.

127. “Nuclear Structure Aspects in Nuclear Astrophysics: The Origin of the Heavy Elements”, invited talk, International Workshop on High Density Nuclear Physics & QCD, Yerevan, Armenia, October 6-10, 2008.

126. “Rotations and Vibrations”, invited talk, symposium in honor of Joe Hamilton’s 50 years of Teaching and Research, Vanderbilt University, October 2-3, 2008.

125. “Expanding Universe, Shrinking Budgets”, colloquium, Physics Department, Michigan State University, East Lansing, September 18, 2008.

124. “The life of a physicist”, talk to New Buffalo, MI Area High School students and teachers, Notre Dame, IN, August 11, 2008.

123. “Origin of the heavy elements,” colloquium, Physics Department, Ohio University, Athens, OH, May 9, 2008.

122. “Physics of the Universe: From Dark Energy to the Origin of Life”, special talk to Presidential awardees for High School Teachers from all 50 states, NSF, Arlington, VA, April 29, 2008.

121. “Nuclear masses and what they imply for neutron-rich nuclei,” invited talk, 4th International Conference on Fission and Properties of Neutron-rich Nuclei, Sanibel Island, FL, November 16, 2007.

120. “Nuclear Structure Aspects in Nuclear Astrophysics,” seminar, Physics Department, University of Maryland, College Park, MD, October 17, 2007.

119. “Introduction to Nuclear Astrophysics I, II, III,” invited talks, RIA Summer School, Michigan State University, East Lansing, MI, August 11-15, 2007.

118. “Light and Dark Matter,” seminar, University of Richmond, February 14, 2007.

117. “News & Views from the Users of ATLAS,” invited talk, A. Aprahamian, ATLAS Science & Technology Review, Argonne National Laboratory, June 20-21, 2006.

116. “The science of JINA,” invited talk, to high school teachers participating in the JINA sponsored PIXE-PAN program held at the University of Notre Dame Institute for Structure and Nuclear Astrophysics, June 15, 2006.

115. “How we did it at Notre Dame,” invited talk, 49th Annual Conference of Science Editors held in Tampa, FL. 1 of 3 panelists at a session on “Influential Women in Science,” May 21, 2006.

114. “Nuclear Physics in Action: Following the Light in the Universe,” colloquium, Western Kentucky University, Bowling Green, KY, April 3, 2006.

113. "Deformed Nuclei and K=0^+ Excitations," invited talk, symposium on Contemporary Frontiers in Nuclear Structure at the 231st ACS meeting, Atlanta, GA, March 26-30, 2006.

112. "JINA at Notre Dame," invited talk, 22nd Winter Workshop on Nuclear Dynamics, La Jolla, CA, March 11-19, 2006.

111. "Nuclear Physics: Following the Light in the Universe," invited talk, 2006 Joint Annual Conference of National Society of Black and Hispanic Physicists," San Jose, CA, February 17, 2006.

110. "Users of low-energy nuclear physics facilities on RIA," talk, presented to the National Academies RISAC Committee on the Science of RIA, December 16, 2005.

109. "Following the light in the Universe," colloquium, University of North Carolina, Chapel Hill, NC, November 14, 2005.

108. "What is the nature of K=0^+ bands in deformed nuclei? A challenge to nuclear structure for four decades," invited talk, IV Latin American Symposium on Nuclear Physics and Applications, Iguazu, Argentina, October 3-7, 2005.

107. "Cosmology: Ernan McMullin with Physics and Philosophy at Notre Dame," invited talk, Cosmology Workshop, Notre Dame, IN, April 20, 2005.

106. "Following the Light in the Universe: Nuclear Structure in Nuclear Astrophysics," seminar, Indiana University Cyclotron Facility, Bloomington, IN, February 25, 2005.

105. "The Nature of K=0^+ Bands in Deformed Nuclei: Dynamics from ripples to Tidal Waves," invited talk, NUSTAR'05 (An international conference on the interface between Nuclear STructure, Astrophysics and Reactions, held at the University of Surrey, Guildford, United Kingdom, January 5-8, 2005.

104. "Low energy 0^+ excitations in ^{158}Gd," invited talk, J.G. Hirsh, G. Popa, C.E. Vargas, S.R. Lesher, A. Aprahamian, XXVIII Symposium on Nuclear Physics, Cocoyoc, Mexico, January 4-7, 2005.

103. "The Nature of the first excited K=0^+ band in Deformed Nuclei," Workshop on New Descriptions of Transitional Nuclei held at the Lawrence Berkeley National Laboratory, Berkeley, CA, October 21- 23, 2004.

102. "Nuclear Physics and the Origin of the Elements," seminar, QuarkNet lecture to local high school teachers, QuarkNet Center, South Bend, IN, May 10, 2004.

101. "The Origin of the Elements," International Advisory Board of JINA, Notre Dame, IN, April 30, 2004.

100. "Nuclear Astrophysics and the Cosmos," invited talk, First ND-ANL Collaboration Workshop, University of Notre Dame, Notre Dame, IN, January 22-23, 2004.

99. "Structure of Heavy Helium Isotopes via the Isobaric Analog States in Lithium," invited talk, G.V. Rogachev, P. Boutachkov, A. Aprahamian, M. Quinn, J.J. Kolata, B. Skorodumov, A. Woehr,

V.Z. Goldberg, G. Chubarian, A. Fomichev, M.S. Golovkov, Yu. Ts. Oganessian, A. Rodin, R.S. Slepnev, G. Ter-Akopian, R. Wolski, W.H. Trzaska, P.A. DeYoung, G.F. Peaslee, F.D. Becchetti, and Y. Chen, RNB-6, Argonne National Laboratory, Argonne, IL, September 22-26, 2003.

98. "JINA, Joint Institute for Nuclear Astrophysics," invited talk, National Superconducting Cyclotron Laboratory Users Workshop, East Lansing, MI, September 28, 2003.

97. "Nuclear Astrophysics: a new era?" seminar, Yerevan State University, Yerevan, Armenia, September 9, 2003.

96. "The Nature of Low-lying K=0^+ Bands in Nuclei," invited talk, International Conference on Nuclear Structure and Related Topics, NSRT03, Dubna, Russia, September 2-6, 2003.

95. "From Ripples to Tidal Waves: Low Lying Vibrational Motion in Nuclei," invited talk, International Conference on Collective Motion in Nuclei Under Extreme Conditions (COMEX1), University of Paris, La Sorbonne, Paris, France, July 10-13, 2003.

94. "Why our sun takes billions of years to burn up instead of minutes," invited talk, ACS Summer School in Nuclear Science, Brookhaven National Laboratory, Upton, NY, June 26, 2003.

93. "Stardust: We are all made of stardust," invited talk, ACS Summer School in Nuclear Science, Brookhaven National Laboratory, Upton, NY, June 26, 2003.

92. "Nuclear Physics at Notre Dame," invited talk, National Academies, National Research Council, Washington, DC, May 12, 2003.

91. "Nuclear Structure Effects in Astrophysics," invited talk, Eleventh International Symposium on Capture Gamma-Ray and Related Topics, Pruhonice, Czech Republic, September 1-4, 2002.

90. "Nuclear Masses in Nucleosynthesis," invited talk, Symposium in Honor of Daeg Brenner at the 224th ACS National Meeting in Boston, MA, August 20, 2002.

89. "What is the nature of K=0^+ Bands in deformed nuclei?" invited talk, International Conference on Nuclear Structure, Mapping the Triangle, Grand Teton National Park, WY, May 22-25, 2002.

88. "Nuclear Masses and Nucleosynthesis," seminar, National Superconducting Cyclotron Laboratory, Michigan State University, East Lansing, MI, February 6, 2002.

87. "Exploding Stars to the Laboratory," seminar, Physics N-Division, Lawrence Livermore National Laboratory, Livermore, CA, August 22, 2001.

86. "Nuclear Masses and Abundances of the Elements in the Universe," invited talk, APS National Meeting, Washington, DC, April 28-May 1, 2001.

85. "Nuclear Masses," invited talk, "Symposium on Rare Isotope Research – Past, Present and Future" at the 221st ACS National Meeting, San Diego, CA, April 1-5, 2001.

84. "Isomeric States in Nuclei and Their Influence on the rp-process," invited talk, Workshop on "RISING (Rare Isotope Investigations at GSI) Physics with Stopped Beams," Gottingen, Germany, March 8-9, 2001.

83. "Nuclear Masses and Nucleosynthesis," seminar, Michigan State University, East Lansing, MI, February 21, 2001.

82. "From Exploding Stars to the Laboratory," colloquium, Florida State University, Tallahassee, FL, February 15, 2001.

81. "K=0^+ Excitations in Deformed Nuclei," seminar, Institute of Nuclear Theory, University of Washington, November 2, 2000.

80. "Nucleosynthesis in the rp-process: A new Semi-empirical mass model," invited talk, 2^{nd} Euroconference on Atomic Physics at Accelerators: Mass Spectrometry, Cargèse, Corsica (France), September 19-23, 2000.

79. "Lifetimes of the N=Z Waiting Point Nuclei," invited talk, International Conference on Nuclear Structure 2000, East Lansing, MI, August 15-18, 2000.

78. "From Exploding Stars to the Laboratory...Nucleosynthesis in accreting binary stars," colloquium, Johannes Gutenberg University of Mainz, Germany, July 3, 2000.

77. "The Nature of K=0^+ Excitations in Deformed Nuclei," invited talk, 19th International Nuclear Theory Workshop, Rila, Bulgaria, June 12-17, 2000.

76. "Exploding Stars and the Structure of N=Z nuclei, seminar, University of Kentucky, Lexington, KY, April 13, 2000.

75. "Spectroscopy with Radioactive Ion Beams," invited talk, American Chemical Society Symposium on New Nuclear Science with New Techniques in this Millennium, San Francisco, CA, March 26-31, 2000.

74. "Nuclear Dynamics," colloquium, Institute for Theoretical Physics, Gent, Belgium, December 16, 1999.

73. "From Exploding Stars to the Laboratory: Structure and Lifetimes of N=Z Nuclei," seminar, Grand Accélérateur National d'Ions Lourds, Caen, France, December 7, 1999.

72. "Vibrations in Nuclei: K = 0^+ bands in Deformed Nuclei," seminar, Centre de Spectrométrie Nucléaire et de Spectrométrie de Masse, Orsay, France, November 25, 1999.

71. "K=0^+ Excitations in Deformed Nuclei: Lifetimes with GRID," invited talk, 10th International Conference on Capture Gamma-Spectroscopy and Related Topics, Santa Fe, NM, August 30 – September 3, 1999.

70. "Stellar Explosions and the Structure of N=Z Nuclei," seminar, Los Alamos Theory Division, Los Alamos National Laboratory, NM, August 19, 1999.

69. “From Explosions to the Laboratory,” seminar, Los Alamos Neutron Science Center, Los Alamos National Laboratory, NM, August 13, 1999.

68. “From Exploding Stars to the Laboratory: Nuclear Structure at Notre Dame,” invited talk, Biennial Yale Workshop 1999, New Haven, CT, June 10-12, 1999.

67. “Explosive Nucleosynthesis and Structure of N=Z Nuclei,” seminar, Nuclear Physics Institute, Laboratori Nazionale di Legnaro, Legnaro, Italy, May 14, 1999.

66. “Status of observed multiphonon vibrational excitation in nuclei,” invited talk, Int. Workshop on Double Giant Resonances and Multiphonon Vibrations in Nuclei at the European Center for Theoretical Physics, Trento, Italy, May 10-21, 1999.

65. “N=Z Nuclei and Exploding Stars,” seminar, University of Bordeaux, Bordeaux, France, April 30, 1999.

64. “From Exploding Stars to Nuclear Structure,” seminar, University of Surrey, Guildford, United Kingdom, April 28, 1999.

63. “Multiphonon Vibrational Excitations in Nuclei,” seminar, University of Manchester, Manchester, United Kingdom, April 21, 1999.

62. “Explosive Nucleosynthesis and Structure of N=Z Nuclei,” seminar, University of Liverpool, United Kingdom, February 23, 1999.

61. “$K=0^+$ Excitations in Nuclei,” invited talk, New Physics for the New Millennium Conference, Faure, South Africa, January 22, 1999.

60. “Vibrational Excitation in the A=80 region of Nuclei,” invited talk, at the ACS Symposium on Nuclear Structure at Low Excitation Energies on the Occasion of Bill Walter’s 60th Birthday, Boston, MA, August 23-27, 1998.

59. “Collective $K=0^+$ Vibrational Excitations in Nuclei,” invited talk, at the Plenary Session of the International Conference on Nuclear Structure at the Extremes on the Occasion of the 40th Anniversary of SU(3) Symmetry in Nuclear Physics in Lewes, United Kingdom, June 17-19, 1998.

58. “Vibrational Dynamics in Nuclei,” seminar, Ohio University, Athens, OH, February 24, 1998.

57. “rp-process nucleosynthesis and RIBs,” invited talk, at the Workshop on the Science for an Advanced ISOL facility, Columbus, OH, July 31, 1997.

56. “$K=0^+$ excitations in Nuclei,” invited talk, at the Workshop on Nuclear Physics with GEANIE at LANSCE, Taos, NM, June 23, 1997.

55. “Nuclear Masses in the A=80 Region,” invited talk, at the International Conference for Nuclear Data in Science and Technology, Trieste, Italy, May 19, 1997.

54. “Nucleosynthesis in Explosive Astrophysical Scenarios,” seminar, Czech Technical University, Prague, Czech Republic, May 15, 1997.

53. “Experiments with detectors at the FMA focal plane,” invited talk, at Workshop II on the Science and Operation of Gammasphere at ATLAS, Argonne National Laboratory, May 10, 1997.

52. “Nucleosynthesis in Explosive Scenarios via the rp-process,” colloquium, Rutgers University, Piscataway, NJ, February 25, 1997.

51. “Vibrational Excitation in Nuclei: A Status Report,” seminar, Rutgers University, Piscataway, NJ, February 25, 1997.

50. “Nucleosynthesis of the Elements and Nuclear Structure,” seminar, Hope College, Hope, MI, November 13, 1996.

49. “The Astrophysical rp-process and Nuclear Structure in the A=80 Region of Nuclides,” invited talk, at the 9th International Conference on Neutron-Capture Studies and Related Topics, Budapest, Hungary, October 10, 1996.

48. “Patriarchy, Scientists and Nuclear Warriors,” invited talk, Women: Alternative Philosophical Perspectives (Phil 232), October 10, 1996.

47. “The A=80 Region of Nuclei and Experiments with Radioactive Ion Beams,” colloquium, Flerov Laboratory of Nuclear Reactions, Dubna, Russia, September 17, 1996.

46. “Exotic Beam and Nuclear Structure near the limits,” seminar at the Erevan Physics Institute, Erevan, Armenia, September 12, 1996.

45. “The A=80 Region of Nuclei and Radioactive Beams,” invited talk, at the International Workshop on Physics of Unstable Nuclear Beams, São Paulo, Brazil, August 28-31, 1996.

44. “Opening Remarks,” International Conference on Nuclei in the Cosmos, Notre Dame, IN, June 20- 27, 1996.

43. “Exotic beams and nuclear structure in the A=80 region of nuclei,” invited talk, at the XIX Symposium on Nuclear Physics, Oaxtepec, Morelos, Mexico, January 3, 1996.

42. “A woman physicist,” visiting lectures to class in Gender Studies (Phil. 354), University of Notre Dame, September 15 and October 4, 1995.

41. “Nuclear Dynamics: Rotations and Vibrations,” seminar, University of Surrey, Guildford, United Kingdom, July 7, 1995.

40. “The Role of Gender in the Physical Sciences,” invited talk, Women’s History Month celebrations, University of Notre Dame, February 1995.

39. “Rotation and Vibrations in Nuclei,” colloquium, Texas A&M University, College Station, TX, May 3, 1994.

38. “Vibrational Degrees of Freedom in Deformed Nuclei,” seminar, University of Rochester, Rochester, NY, April 29, 1994.

37. “Vibrational Degrees of Freedom in Deformed Nuclei,” seminar, Clark University Department of Physics and Chemistry, Worcester, MA, April 4, 1994.

36. “Vibrational Degrees of Freedom in Deformed Nuclei,” seminar, Rutgers University Department of Physics and Astronomy, NJ, February 21, 1994.

35. “Vibrational Multi-Phonon Excitations and Identical Bands,” seminar, Nuclear Physics Institute, University of Köln, Köln, Germany, October 19, 1993.

34. “Two-Phonon Vibrational Bands in the Deformed Rare-Earth Region of Nuclei,” seminar, Theoretical Physics Institute, University of Lund, Lund, Sweden, October 8, 1993.

33. “Vibrational Degrees of Freedom in Nuclei,” seminar, Nuclear Research Center, Studsvik, Sweden, October 5, 1993.

32. “Multi-phonon Vibrational Excitation in Deformed Nuclei,” seminar, Niels Bohr Institute, Copenhagen, Denmark, September 28, 1993.

31. “Multi-Phonon Quadrupole Vibrational States in Deformed Nuclei,” invited talk, Plenary Session of the Eighth International Symposium on Capture Gamma-Ray Spectroscopy, Fribourg, Switzerland, September 20-24, 1993.

30. “A Possible New Signature for Vibrational Bands of Deformed Nuclei,” seminar, University of Liverpool, Liverpool, England, September 17, 1993.

29. “Identical Dynamic Moments of Inertia as a Possible Signature of Vibrational Bands,” invited talk, Brighton-Surrey Workshop on Nuclear Structure, Brighton, England, September 15, 1993.

28. “A Possible New Signature for the Characterization of Vibrational Bands,” invited talk, ACS Symposium on Technical and Scientific Issues of Radioactive Beams, Chicago, IL, August 26, 1993.

27. “Multi-phonon Vibrational Band in Deformed Nuclei,” invited talk, American Physical Society Invited Talk on Open Questions in Nuclear Structure Physics, Washington, DC, April 15, 1993.

26. “Vibrational Degrees of Freedom in Nuclei,” colloquium, University of Pittsburgh, Pittsburgh, PA, March 18, 1993.

25. “Vibrational Degrees of Freedom in Deformed Nuclei,” invited talk, XVI Nuclear Physics Symposium, Oaxtepec, Mexico, January 5, 1993.

24. “Gamma Ray Induced Doppler Broadening and Nuclear Lifetimes in the Femtoseconds,” seminar, Argonne National Laboratory, Argonne, IL, October 12, 1992.

23. “Nuclear Shapes and Vibrations of Deformed Nuclei,” invited talk, ACS Symposium on Nuclear Shapes, Washington, DC, August 24-28, 1992.

22. “Vibrational Degrees of Freedom in Deformed Nuclei,” invited talk, Sixth International Conference on Nuclei Far From Stability and the Ninth International Conference on Atomic Masses and Fundamental Constants, Bernkastel-Kues, Germany, July 19-24, 1992.

21. “Radioactive Ion Beams and Vibrations in Deformed Nuclei,” invited talk, Symposium on Radioactive Nuclear Beams, San Francisco, CA, April 6-10, 1992.

20. “Vibrational States of Deformed Nuclei,” seminar, University of Pittsburgh, Pittsburgh, PA, January 20, 1992.

19. “Vibrations in Deformed Nuclei,” seminar, Florida State University, Tallahassee, FL, January 17, 1992.

18. “Multi-phonon vibrations or nuclear lifetimes in the femtoseconds,” seminar, Michigan State University Nuclear Structure Cyclotron Laboratory, East Lansing, MI, May 8, 1991.

17. “Double-Phonon Vibrations in Deformed Nuclei,” invited talk, ACS Symposium on Recent Advances in Nuclear Structure Research, Atlanta, GA, April 15-19, 1991.

16. “Nuclear lifetimes in the femtoseconds,” seminar, University of Notre Dame, Notre Dame, IN, February 4, 1991.

15. “Vibrational Excitation in Defined Nuclei,” invited talk, XIV Nuclear Physics Symposium, Cuernavaca, Mexico, January 7-10, 1991.

14. “A brief introduction to Nuclear Physics,” seminar, summer school for minority students in science and engineering, University of Notre Dame, Notre Dame, IN, July 13, 1990.

13. “Supersymmetry in Nuclei,” seminar, University of Notre Dame, Notre Dame, IN, December 4, 1989.

12. “The Universe, Nuclei and Radiation,” colloquium, Armenian Scientists and Engineers, Hollywood, CA, July 15, 1988.

11. “^{118}Cd: First Observation of a U(5) Nucleus,” colloquium, University of Notre Dame, Notre Dame, IN, May 2, 1988.

10. “Nuclear Masses and Binding Energies Along the r-process Path,” seminar, Institute of Geoplanetary Physics, Lawrence Livermore Laboratory, Livermore, CA, April 22, 1988.

9. “Predictions of Nuclear Properties Far from Stability,” seminar, Nuclear Science Division, Lawrence Berkeley Laboratory, Berkeley, CA, March 18, 1988.

8. “Anharmonic Vibrational Motion and ^{118}Cd,” seminar, Univ. of Wisconsin, Madison, WI, March 3, 1988.

7. “First Observation of a Vibrational Nucleus,” seminar, Univ. of Pennsylvania, Philadelphia, PA, February 24, 1988.

6. "Nuclear Properties Far from Stability," colloquium, Univ. of Arizona, Tucson, AZ, January 22, 1988.

5. "Binding Energies and Masses in the IBA," colloquium, Nuclear Chemistry Div., Lawrence Livermore National Laboratory, Livermore, CA, November 11, 1987.

4. "Masses along the r-process path," invited talk, Symposium on the Origin and Distribution of the Elements, New Orleans, LA, August 31-September 4, 1987.

3. "A perfect U(5) nucleus: ^{118}Cd," invited talk, International Conference on Nuclear Structure, Reaction, and Symmetries, Dubrovnik, Yugoslavia, June 5-14, 1986.

2. "The Neutron-Rich Cadmium Isotopes," invited talk, ACS Symposium on Nuclei Off the Line of Stability, Chicago, IL, September 8-13, 1985.

1. "Intruders in the Cd Isotopes and a Simple Explanation," invited talk, Workshop on Interacting Boson-Boson and Boson-Fermion Systems, Kellogg Conference Center, Gull Lake, MI, May 28-30, 1984.

Reviewed Publications in Journals

222. "Armenia: A regional Science and Technology Center in the Caucasus?" A. Aprahamian, Nuclear Physics News, 32:4, 12-15, 2022. Published on-line on Dec. 15, 2022. https://doi.org/10.1080/10619127.2022.2133498

221. "Investigation of the 14N (p,γ)1 5O reaction and its impact on the CNO cycle" B. Frentz, A. Aprahamian, A. Boeltzig, T. Borgwardt, A. M. Clark, R. J. deBoer, G. Gilardy, J. Görres, M. Hanhardt, S. L. Henderson, K. B. Howard, T. Kadlecek, Q. Liu, K. T. Macon, S. Moylan, C. S. Reingold, D. Robertson, C. Seymour, S. Y. Strauss, F. Strieder, B. Vande Kolk, and M. Wiescher; Phys. Rev. C **106**, 065803 – Published 20 December 2022
DOI: https://doi.org/10.1103/PhysRevC.106.065803

220. "Transformation of ICEBall to fIREBall for Conversion Electron Spectroscopy" Kevin Lee, Christina Dulal, Wanpeng Tan, Armen Gyurjinyan, Ethan Sauer, Shelly Lesher, Ani Aprahamian, submitted to Nuclear Instruments and Methods A, 2022.

219. "Vibrating Wire Station for Horizontal and Vertical Profiling of Proton Beam of Cyclotron C-18 in Air" By: Aginian, MA (Aginian, M. A.) [1] ; Aprahamian, AP (Aprahamian, A. P.) [1]; Arutunian, SG (Arutunian, S. G.) [1] ; Harutyunyan, GS (Harutyunyan, G. S.) [1] ; Lazareva, EG (Lazareva, E. G.) [1] ; Lazarev, LM (Lazarev, L. M.) [1] ; Margaryan, AV (Margaryan, A., V) [1] ; Shahinyan, LA (Shahinyan, L. A.) [1] ; Dallakyan, RK (Dallakyan, R. K.) [1] ; Manukyan, AA (Manukyan, A. A.) [1]; Elbakyan, VK (Elbakyan, V. K.) [1] ; Hovhannisyan, GA (Hovhannisyan, G. A.) [1]; Elbakyan, GE (Elbakyan, G. E.) [1] ; Chung, M (Chung, M.) [2] ; Kwak, D (Kwak, D.) [2] **JOURNAL OF CONTEMPORARY PHYSICS-ARMENIAN ACADEMY OF SCIENCES**, Vol. 56, Issue 4, Pages 297-308, October 2021 but indexed Jan. 1, 1, 2022.
DOI: 10.3103/S1068337221040022

218. "Neutron Capture of UO_2 Targets Prepared by Spin Coating Assisted Combustion Synthesis" A. Majumdar*, K.V. Manukyan, W. Tan, S. Dede*, J.M. Roach*, A. Couture, P.C. Burns, A. Aprahamian, **Nuclear Inst. and Meth. in Physics Research, A** 1045 167551 6 pages (2023). https://doi.org/10.1016/j.nima.2022.167551

217. "Lifetime measurements of 0+ states in 168Er with the Doppler-shift attenuation method" S.R. Lesher, A. Aprahamian, K. Lee, B. Alemayehu, L.M. Clark, X. James, J.C.T. Lowrie, M. Meier, L. McEwan, S. Mukhopadhyay, E.E. Peters, A.P.D. Ramirez, M. Ryan, B.G. Rice, A. Stratman, E. Temanson, J.R. Vanhoy, and S.W. Yates, **Phys. Rev. C 106, 044302 (2022**). DOI:10.1103/PhysRevC.106.044302

216. R. Kelmar, K.V. Manukyan, A. Simon, A. Aprahamian, Preparation and Characterization of Isotopically Pure Mo Targets for Nuclear Science Measurements, **Nuclear Instruments and Methods A. Vol. 1034, 166763, July 1, 2022**.

215. S. Dede, K.V. Manukyan, J.M. Roach, A.Majumdar, P.C. Burns, and A. Aprahamian, Irradiation-induced amorphization of UO_2 films prepared by spraying assisted combustion synthesis, **Appl. Surf. Sci. 2022, 603, 154437,** 11 pages. doi.org/10.1016/j.apsusc.2022.154437

214. ATHENA detector proposal — a totally hermetic electron nucleus apparatus proposed for IP6 at the Electron-Ion Collider, J. Adam et al., Journal of Instrumentation 17, P10019, 2022 **DOI** 10.1088/1748-0221/17/10/P10019

213. "Next generation gamma-ray source", C.R. Howell, M.W. Ahmed, A. Afanasev, D. Alesini, J.R.M. Annand, A. Aprahamian, D.L. Balabanski, S.V Benson, A. Bernstein, C.R. Brune, J Byrd, B E Carlsten, A E Champagne, S Chattopadhyay, D Davis, E J Downie, J M Durham, G Feldman, H Gao, C G R Geddes, H W Grießhammer, R Hajima, H Hao, D Hornidge, J Isaak, R V F Janssens, D P Kendellen, M A Kovash, P P Martel, U-G Meißner, R Miskimen, B Pasquini, D R Phillips, N Pietralla, D Savran, M R Schindler, M H Sikora, W M Snow, R P Springer, C Sun, C Tang, B Tiburzi, A P Tonchev, W Tornow, C A Ur, D Wang, H R Weller, V Werner, Y K Wu, J Yan, Z Zhao, A Zilges and F Zomer; Journal of Physics G:Nuclear and Particle Physics, Volume 49, number 1, 2022; https://doi.org/10.1088/1361-6471/ac2827

212. "Hyperstoichiometric Uranium Dioxides: Rapid Synthesis and Irradiation-Induced Structural Changes," J.M. Roach*, K.V. Manukyan, A. Majumdar*, S. Dede*, A.G. Oliver, P.C. Burns, A. Aprahamian, Inorg. Chem. 60, 24, 18938–18949, (2021).

211. S. Dede, J. Roach, A. Majumdar, K.V. Manukyan, P.C. Burns and A. Aprahamian, Actinide Targets for Nuclear Physics Measurements, A Review article will be submitted to Journal of Radioanalytical and Nuclear Chemistry

210. "Reconstruction of β-delayed neutron energy spectra from recoil-ion spectroscopy of trapped ions" G.L. Wilson a,b,∗ , T.S. Nagel c,d , S.T. Marley a , N.D. Scielzo d , A. Aprahamian e , J.A.

Clark b, A. Czeszumska d , G. Savard b,f , K. Siegl e,1 , B.S. Wang, Nucl. Inst. And Methods in Physics Research A 1017, 165806 (2021).
https://doi.org/10.1016/j.nima.2021.165806

209. "Low-spin states in 80Ge populated in the β decay of the ^{80}Ga 3− isomer",S. Sekal, L. M. Fraile, R. Lic˘a, M. J. G. Borge, W. B. Walters, A. Aprahamian, C. Benchouk, C. Bernards, J. A. Briz, B. Bucher, C. J. Chiara, Z. Dlouhý, I. Gheorghe, D. G. Ghi¸t˘a, P. Hoff, J. Jolie, U. Köster, W. Kurcewicz, H. Mach, N. M˘arginean, R. M˘arginean, Z. Meliani, B. Olaizola, V. Paziy, J. M. Régis, M. Rudigier, T. Sava, G. S. Simpson, M. St˘anoiu, and L. Stroe; PHYSICAL REVIEW C 104, 024317 (2021);
DOI: 10.1103/PhysRevC.104.024317

208. "Vibrating Wire Station for Horizontal and Vertical Profiling of Proton Beam of Cyclotron C18 in Air", Aginian, MA; Aprahamian, AP; (Arutunian, S.G.) Harutyunyan, GS (Harutyunyan, G.S.) Lazareva, EG (Lazareva, E.G.) Lazarev, LM (Lazarev, L.M.) Margaryan, AV (Margaryan, A., V) Shahinyan, LA (Shahinyan, L.A.) Dallakyan, RK (Dallakyan, R.K.) Manukyan, AA (Manukyan, A.A.) Elbakyan, VK (Elbakyan, V.K.) Hovhannisyan, GA (Hovhannisyan, G.A.) Elbakyan, GE (Elbakyan, G.E.) Chung, M (Chung, M.) Kwak, D (Kwak, D.) 2, JOURNAL OF CONTEMPORARY PHYSICS-ARMENIAN ACADEMY OF SCIENCES; JOURNAL OF CONTEMPORARY PHYSICS-ARMENIAN ACADEMY OF SCIENCES 56 (4), pp.297-308; Oct 2021.

207. "Reconstruction of β-delayed neutron energy spectra from recoil-ion spectroscopy of trapped ions" G.L. Wilson, T.S. Nagel, S.T. Marley N.D. Scielzo, A. Aprahamian, J.A. Clark, A. Czeszumska, G. Savard, K. Siegl, B.S. Wang, **Nuclear Inst. and Methods in Physics Research, A 1017** (2021) 165806.
https://doi.org/10.1016/j.nima.2021.165806

206. "Hyperstoichiometric Uranium Dioxides: Rapid Synthesis and Irradiation-Induced Structural Changes" J.M. Roach, K.V. Manukyan, A. Majumdar, S. Dede, A.G. Oliver, P.C. Burns A. Aprahamian, **Inorg. Chem., 60**, 18938−18949 (2021).

205. "Combustion in the ZrF4-Mg-Si and ZrF4-Al-Si systems for preparation of zirconium silicides", M.K. Zakaryan, S.L. Kharatyan, A. Aprahamian, K.V. Manukyan", **Combustion and Flame 232** 111514, 9 pages (2021).

204. "Irradiation-driven Restructuring of UO2 Thin Films: Amorphization and Crystallization" Majumdar, Ashabari ; Manukyan, Khachatur; Dede, Stefania ; Roach, Jordan; Robertson, Daniel; Burns, Peter; Aprahamian, Ani, **ACS Appl. Mater. Interfaces**, 13, 29, 35153-35164, 2021.
https://doi.org/10.1021/acsami.1c08682

203. "Origin of the heaviest elements: The rapid neutron-capture process", John J. Cowan, Christopher Sneden, James E. Lawler, Ani Aprahamian, Michael Wiescher, Karlheinz Langanke, Gabriel Martínez-Pinedo, and Friedrich-Karl Thielemann, **Rev. Mod. Phys. 93**, 015002 – Published 1 February 2021
https://doi.org/10.1103/RevModPhys.93.015002

202. "Open Challenges to Nuclear Physics from the Neutron Star Merger", A. Aprahamian, **Nuclear Physics News**, GNPN 1915019 (2021); DOI:10.1080/10619127.2021.1915019.

201. "*Lifetime measurements of excited states in ^{15}O*", B. Frentz, A. Aprahamian, A. M. Clark, R.J. deBoer, C. Dulal, J. D. Enright, J. Görres, S. L. Henderson, J. D. Hinnefeld, K. B. Howard, R. Kelmar, K. Lee, L. Morales, S. Moylan, Z. Rahman, W. Tan, L. E. Weghorn, and M. Wiescher, **Phys. Rev. C 103**, 045802 (2021); DOI: 10.1103/PhysRevC.103.045802.

200. "*Thermodynamics and kinetics of solution combustion synthesis: $Ni(NO_3)_2$ + fuels systems*" By: Amirkhanyan, Narine; Kharatyan, Suren; Manukyan, Khachatur; Aprahamian, Ani, **COMBUSTION AND FLAME Volume:** 221 Pages: 110-119 Published: NOV 2020 https://doi.org/10.1016/j.combustflame.2020.07.038

199. "*Fast-timing study of Ga-81 from the beta decay of Zn-81*", Paziy, V; Fraile, LM; Mach, H; Olaizola, B; Simpson, GS; Aprahamian, A; Bernards, C; Briz, JA; Bucher, B; Chiara, CJ; Dlouhy, Z; Gheorghe, I; Ghita, D; Hoff, P; Jolie, J; Koster, U; Kurcewicz, W; Lica, R; Marginean, N; Marginean, R; Regis, JM; Rudigier, M; Sava, T; Stanoiu, M; Stroe, L; Walters, WB; **PHYSICAL REVIEW C, Volume: 102**, Issue: 1, Article Number: 014329, Published: JUL 30, 2020. https://doi.org/10.1103/PhysRevC.102.014329

198. "*Observation of T=3/2 isobaric analog states in Be-9 using p + Li-8 resonance scattering*" , Hunt, C; Rogachev, GV; Almaraz-Calderon, S; Aprahamian, A; Avila, M; Baby, LT; Bucher, B; Goldberg, VZ; Johnson, ED; Kemper, KW; Kuchera, AN; Tan, WP; Wiedenhover, I; **PHYSICAL REVIEW C, Volume: 102**, Issue: 1, Article Number: 015615, Published: JUL 20, 2020. https://doi.org/10.1103/PhysRevC.102.014615

197. *"Mechanisms of mechanochemical synthesis of cesium lead halides: pathways toward stabilization of alpha-$CsPbI_3$*", Aleksanyan, E (Aleksanyan, Eduard); Aprahamian, A (Aprahamian, Ani); Mukasyan, AS (Mukasyan, Alexander S.); Harutyunyan, V (Harutyunyan, Vachagan); Manukyan, KV (Manukyan, Khachatur V.); **JOURNAL OF MATERIALS SCIENCE, Volume: 55**, Issue: 20, Pages: 8665-8678, Published: JUL 2020. https://doi.org/10.1007/s10853-020-04617-3

196. "*Exploring the mass surface near the rare-earth abundance peak via precision mass measurements at JYFLTRAP*", Vilen, M; Kelly, JM; Kankainen, A; Brodeur, M; Aprahamian, A; Canete, L; de Groote, R; de Roubin, A; Eronen, T; Jokinen, A; Moore, ID; Mumpower, MR; Nesterenko, DA; O'Brien, J; Perdomo, AP; Penttila, H; Reponen, M; Rinta-Antila, S; Surman, R; **PHYSICAL REVIEW C, Volume: 101,** Issue: 3, Article Number: 034312, Published: MAR 24, 2020. https://doi.org/10.1103/PhysRevC.101.034312

195. Erratum "*Precision Mass Measurements on Neutron-Rich Rare-Earth Isotopes at JYFLTRAP: Reduced Neutron Pairing and Implications for r-Process Calculations",* Vilen, M; Kelly, JM; Kankainen, A; Brodeur, M; Aprahamian, A; Canete, L; Eronen, T; Jokinen, A; Kuta, T; Moore, ID;

Mumpower, MR; Nesterenko, DA; Penttila, H; Pohjalainen, I; Porter, WS; Rinta-Antila, S; Surman, R; Voss, A; Aysto, J; **Phys. Rev. Lett. 124, 129901**, Published: MAR 24, 2020. https://doi.org/10.1103/PhysRevLett.124.129901

194. **Precision Mass Measurements on Neutron-Rich Rare-Earth Isotopes at JYFLTRAP: Reduced Neutron Pairing and Implications for r-Process Calculations**
M Vilen[1], J M Kelly[2], A Kankainen[1], M Brodeur[2], A Aprahamian[2], L Canete[1], T Eronen[1], A Jokinen[1], T Kuta[2], I D Moore[1], M R Mumpower[2,3], D A Nesterenko[1], H Penttilä[1], I Pohjalainen[1], W S Porter[2], S Rinta-Antila[1], R Surman[2], A Voss[1], J Äystö[1]
DOI: 10.1103/PhysRevLett.120.262701

193. "*Irradiation-induced reactions at the $CeO_2/SiO_2/Si$ interface*." Sapkota, P (Sapkota, Pitambar); Aprahamian, A (Aprahamian, Ani); Chan, KY (Chan, Kwong Yu); Frentz, B (Frentz, Bryce); Macon, KT (Macon, Kevin T.); Ptasinska, S (Ptasinska, Sylwia); Robertson, D (Robertson, Daniel); Manukyan, K (Manukyan, Khachatur); **JOURNAL OF CHEMICAL PHYSICS, Volume: 152**, Issue: 10, Article Number: 104704, Published: MAR 14, 2020. https://doi.org/10.1103/PhysRevC.101.034312

192. "*Pure and cerium-doped zinc orthosilicate as a pigment for thermoregulating coatings*", Baghramyan, VV; Sargsyan, AA; Knyzyan, NB; Harutyunyan, VV; Badalyan, AH; Grigoryan, NE; Aprahamian, A; Manukyan, KV; **CERAMICS INTERNATIONAL, Volume: 46**, Issue: 4, Pages: 4992-4997, Published: MAR 2020. https://doi.org/10.1016/j.ceramint.2019.10.239

191. "*Beta-delayed neutron emission studies of I-137,I-138 and Cs-144,Cs-145 performed with trapped ions*", Czeszumska, A; Scielzo, NND; Caldwell, SA; Clark, JA; Savard, G; Wang, BS; Aprahamian, A; Burkey, MT; Chiara, CJ; Harker, J; Levand, AF; Marley, ST; Morgan, G; Munson, JM; Norman, EB; Nystrom, A; Orford, R; Padgett, SW; Galvan, AP; Sharma, KS; Siegl, K; Strauss, SY; PHYSICAL REVIEW C, Volume: 101, Issue: 2, Article Number: 024312, Published: FEB 26, 2020. https://doi.org/10.1103/PhysRevC.101.024312

190. "*Beta-delayed-neutron studies of Sb-135,Sb-136 and I-140 performed with trapped ions*", Wang, BS; Caldwell, SA; Scielzo, ND; Czeszumska, A; Clark, JA; Savard, G; Aprahamian, A; Burkey, MT; Chiara, CJ; Harker, J; Levand, AF; Marley, ST; Morgan, GE; Munson, JM; Norman, EB; Nystrom, A; Orford, R; Padgett, SW; Galvan, AP; Sharma, KS; Siegl, K; Strauss, SY; PHYSICAL REVIEW C, Volume: 101, Issue: 2, Article Number: 025806, Published: FEB 24, 2020. https://doi.org/10.1103/PhysRevC.101.025806

189. "*Improving the measurement sensitivity of the Canadian Penning Trap mass spectrometer through PI-ICR*", Orford, R; Clark, JA; Savard, G; Aprahamian, A; Buchinger, F; Burkey, MT; Gorelov, DA; Klimes, JW; Morgan, GE; Nystrom, A; Porter, WS; Ray, D; Sharma, KS; NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, Volume: 463, Pages: 491-495, Published: JAN 15 2020 DOI:10.1016/j.nimb.2019.04.016

188. "*Properties of low-lying states in Co-65 from lifetime measurements*" Olaizola, B; Fraile, LM; Mach, H; Nowacki, F; Poves, A; Aprahamian, A; Briz, JA; Cal-Gonzalez, J; Ghita, D; Koster, U; Kurcewicz, W; Lesher, SR; Pauwels, D; Picado, E; Radulov, D; Simpson, GS; Udias, JM; PHYSICAL REVIEW C, Volume: 99, Issue: 2, Article Number: 024321, Published: FEB 25 2019.
DOI: 10.1103/PhysRevC.99.024321

187. "*r-process nucleosynthesis connecting Rare-Isotope Beam Facilities with the Cosmos*", Horowitz, CJ; Arcones, A; Cote, B; Dillmann, I; Nazarewicz, W; Roederer, IU; Schatz, H; Aprahamian, A; Atanasov, D; Bausweinm, A; Beers, TC; Bliss, J; Brodeur, M; Clark, JA; Frebel, A; Foucart, F; Hansen, CJ; Just, O; Kankainen, A; McLaughlin, GC; Kelly, JM; Liddick, SN; Lee, DM; Lippuner, J; Martin, D; Mendoza-Temis, J; Metzger, BD; Mumpower, MR; Perdikakis, G; Pereira, J; O'Shea, BW; Reifarth, R; Rogers, AM; Siegel, DM; Spyrou, A; Surman, R; Tang, X; Uesaka, T; Wang, M; Journal Of Physics G-Nucl. Part. Phys., VOL 46, ISSUE 8, Article Number: 083001, Published: AUG 2019
DOI: 10.1088/1361-6471/ab0849

186. **"***Precision Mass Measurements of Neutron-Rich Neodymium and Samarium Isotopes and Their Role in Understanding Rare-Earth Peak Formation***",** R. Orford, N. Vassh, J. A. Clark, G. C. McLaughlin, M. R. Mumpower, G. Savard, R. Surman, A. Aprahamian, F. Buchinger, M. T. Burkey, D. A. Gorelov, T. Y. Hirsh, J. W. Klimes, G. E. Morgan, A. Nystrom, and K. S. Sharma**, Phys. Rev. Lett.** 120**, 262702 –** Published 29 June 2018**.**
DOI: https://doi.org/10.1103/PhysRevLett.120.262702

185. "*Recoil ions from the beta decay of sb-134 confined in a Paul trap*", Siegl, K.; Scielzo, N.D.; Czeszumska, A.; et al. Physical Review C Volume: 97 Issue: 3 Article Number: 035504 Published: March 23, 2018.
https://doi.org/10.1103/PhysRevC.97.035504

184. "*Nuclei in the Cosmos: Nuclear Astrophysics Experiments in the USA*", A. Aprahamian, Proceedings of 6th International Conference on Fission and Properties of Neutron-Rich Nuclei (ICFN6), Florida, USA, Edited by Edited By J H Hamilton, A V Ramayya, and P Talou, https://doi.org/10.1142/9789813229426_0003, Wiley Scientific, p.5 (2017)

183. "*The use of cosmic-ray muons in the energy calibration of the Beta-decay Paul Trap silicon-detector array*" By: Hirsh, T.Y.; Galvan, A. Perez; Burkey, M.T.; et al. Nuclear Instruments & Methods in Physics Research Section A-Accelerators Spectrometers Detectors and Associate Equipment Volume: 887 Pages: 122-127 Published: April 11, 2018.
https://www.doi.org/DOI: 10.1016/j.nima.2018.01.021

182. "*Recoil-ion detection efficiency for complex beta decays studied using the Beta-decay Paul Trap*" By: Munson, J.M.; Siegl, K.; Scielzo, N. D.; et al. Nuclear Instruments & Methods in Physics Research Section A-Accelerators Spectrometers Detectors and Associate Equipment Volume: 898 Pages: 60-66 Published: AUG 1 2018
DOI:10.1016/j.nima.2018.04.063

181. "*Beta-decay half-lives of Sb-134,Sb-134m and their isomeric yield ratio produced by the spontaneous fission of Cf-252",* By: Siegl, K.; Kolos, K.; Scielzo, N. D.; et al. PHYSICAL REVIEW C Volume: 98 Issue: 5 Article Number: 054307 Published: NOV 14 2018 https://doi.org/10.1103/PhysRevC.98.054307

180. "*New insights into triaxiality and shape coexistence from odd-mass Rh-109",* By: Bucher, B.; Mach, H.; Aprahamian, A.; et al. PHYSICAL REVIEW C Volume: 98 Issue: 6 Article Number: 064320 Published: DEC 20 2018 https://doi.org/10.1103/PhysRevC.98.064320

179. "*Beta-Delayed Neutron Studies Using Trapped Ions from CARIBU*" Siegl, Kevin; Scielzo, N. D.; Aprahamian, A.; et al. ;Proceedings of the 6th International Conference on Fission and Properties of Neutron-Rich Nuclei, Editors: Hamilton JH, Ramayya AV and Talou P; pages 435-436, 2018. DOI: 10.1142/10694

178. "*Probing the Low-Energy Structure of A=109 Ru – Pd*" Smith, MK; Bucher, B ; Mach, H ; Aprahamian, A ; Simpson, GS ; Rissanen, J ; Ghita, DG ; Olaizola, B ; Kurcewicz, W; Aysto, J et al.; Proceedings of the 6th International Conference on Fission and Properties of Neutron-Rich Nuclei, Editors: Hamilton JH, Ramayya AV and Talou P; pages 287- 288, 2018

176. "*B-decay half-lives of $^{134;134m}$Sb and their isomeric yield ratio produced by the spontaneous fission of ^{252}Cf*" K. Siegl,1, 2 K. Kolos,2 N. D. Scielzo,2 A. Aprahamian,1 G. Savard,3, 4 M. T. Burkey,3, 4 M. P. Carpenter,4 P. Chowdhury,5 J. A. Clark,4 P. Copp,5 C. J. Lister,5 S. T. Marley,6 E. A. McCutchan,7 A. J. Mitchell,8, 5 J. Rohrer,4 M. L. Smith,8 and S. Zhu4, Phys. Rev. C 98, 054307, 2018. https://doi.org/10.1103/PhysRevC.98.054307

175. "*The use of cosmic-ray muons in the energy calibration of the Beta-decay Paul Trap silicon-detector array*" T.Y. Hirsh a,b,c,*, A. Pérez Gálvan b,j, M.T. Burkey b,d, A. Aprahamian e, F. Buchinger f, S. Caldwell b,d, J.A. Clark b, A.T. Gallant g, E. Heckmaier h, A.F. Levand b, S.T. Marley e, G.E. Morgan a,b, A. Nystrom b,e, R. Orford b,f, G. Savard b,d, N.D. Scielzo g, R. Segel i, K.S. Sharma a, K. Siegl b,e, B.S. Wang g, Nuclear Inst. And Methods in Physics Research A 887, 122-127 (2018). https://doi.org/10.1016/j.nima.2018.01.021

174. "*Low lying oscillations of deformed nuclei*", Ani Aprahamian and Shelly R. Lesher,, , EPJ Web Conf. Volume 178, 2018, 16th International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics (CGS16), Article Number 02009 Number of page(s)5 Section Nuclear Structure , Published online 16 May 2018. DOI https://doi.org/10.1051/epjconf/201817802009

173. "*Precision mass measurements on neutron-rich rare-earth isotopes at JYFLTRAP - reduced neutron pairing and implications for the r-process calculations*", M. Vilen,1, _ J.M. Kelly,2, y A. Kankainen,1 M. Brodeur,2 A. Aprahamian,2 L. Canete,1 T. Eronen,1 A. Jokinen,1 T. Kuta,2 I.D.

Moore,1 M.R. Mumpower,2, 3 D.A. Nesterenko,1 H. Penttilä,1 I. Pohjalainen,1 W.S. Porter,2 S. Rinta-Antila,1 R. Surman,2 A. Voss,1 and J. Äystö 1, Phys. Rev. Lett 120, 262701 (2018). https://doi.org/10.1103/PhysRevLett.120.262701

172. "*Recoil-ion detection efficiency for complex β-decays studied using the Beta-decay Paul Trap*", J. M. Munson[a] , K. Siegl[b] , N. D. Scielzo[c] , B. S. Alana,[c] , A. Czeszumskaa,[c,2] , G. Savard[d,e] , A. Aprahamian[b] , S. A. Caldwelld,[e,3] , C. J. Chiarad,[f,1] , J. A. Clark[d] , J. P. Greene[d] , J. Harker[f,d] , S. T. Marley[b,g] , G. E. Morgan[g] , E. B. Norman[a,c] , R. Orford[d,h] , S. Padgett[c] , A. Perez Galvan[d] , K. S. Sharma[i] , S. Y. Strauss[b], Nucl. Inst. And Methods in Physics Research, A 898, 60-66, (2018). https://doi.org/10.1016/j.nima.2018.04.063

171. "*Precision Mass Measurements of Neutron-Rich Neodymium and Samarium Isotopes and Their Role in Understanding Rare-Earth Peak Formation*", R. Orford, N. Vassh, J.A. Clark, G.C. McLaughlin, M.R. Mumpower, G. Savard, R. Surman, A. Aprahamian, F. Buchinger, M.T. Burkey, D.A. Gorelov, T.Y. Hirsh, J.W. Klimes,2 G.E. Morgan, A. Nystrom, and K.S. Sharma, Phys. Rev. Lett. 120, 262702, 2018. https://doi.org/10.1103/PhysRevLett.120.262701

170. "*Lifetime measurements in ^{156}Gd*", A. Aprahamian, R.C. deHaan, A. Stratman, M. Jentschel, H. Borner,) Phys. Rev. C 98, 034303 (2018). https://doi.org/10.1103/PhysRevC.98.054602

169. "*Recoil ions from the β-decay of ^{134}Sb using the Beta-decay Paul Trap*", Kevin Siegl, N. D. Scielzo, Czeszumska, G. Savard, A. Aprahamian, S. A. Caldwell, M. Burkey, C. J. Chiara, J. A. Clark, J. P. Greene, J. Harker, S. T. Marley, G. E. Morgan, E. B. Norman, R. Orford, S. Padgett, A. Perez Galvan, R. E. Segel, K. S. Sharma, and S. Y. Strauss, Phys. Rev. C 97, 035504 (2018). https://doi.org/10.1103/**PhysRevC**.97.035504

168. "*Simulation fits of β-decay measurements of I, Cs, and Sb isotopes in the Beta-decay Paul Trap"*, J. M. Munson , K. Siegl , N. D. Scielzo , A. Czeszumska , G. Savard, A. Aprahamian , S. A. Caldwelle , M. Burkeye, C. J. Chiara , J. A. Clark , J. P. Greene , J. Harker , S. T. Marley , G. E. Morgan , E. B. Norman , R.Orford , S. Padgett, A. Perez Galvan , K. S. Sharma, S. Y. Strauss, submitted to Phys Rev. C (2018).

167. "*Beta-delayed neutron studies of $^{137-138}I$ and $^{144-145\,1}Cs$ performed with trapped ions*", A. Czeszumska, N. D. Scielzo, S. A. Caldwell, J. A. Clark, E. B. Norman, G. Savard, A. Aprahamian, M. Burkey, C. J. Chiara, J. P. Greene, J. Harker, S. T. Marley, G. Morgan, R.Orford, S. Padgett, A. Perez Galvan, R. E. Segel, K. S. Sharma, K. Siegl, and S. Strauss, submitted to Phys. Rev. C (2018).

166. "*Nuclear Structure in the rare-earth region relevant for the r-process probed by precise binding energy measurements at JYFLTRAP*", F. Izraelevitch,[b,d] D. Amidei,[f] A. Aprahamian,[g] R. Arcos-Olalla,[e] G. Cancelo,[d] C. Casarella,[g] A. E. Chavarria,[c] P. Collon,[g] J. Estrada,[d] G. Fernández Moroni,[d] Y. Guardincerri,[d] G. Gutiérrez,[d] A. Gyurjinyan,[g] A. Kavner,[f] B. Kilminster,[h] J. Liao,[h] Q. Liu,[g] M. López,[a] J. Molina,[a] P. Privitera,[c] M. A. Reyes,[e] V. Scarpine,[d] K. Siegl,[g] M. Smith,[g] S. Strauss,[g] W. Tan,[g] J. Tiffenberg[d] and L. Villanueva[e], submitted to Phys. Rev. C (2017).

165. "*First Excited 0^+ States in Deformed Nuclei*", A. Aprahamian, S.R. Lesher, A. Stratman, Bulgarian Journal of Physics, 44, 372 (2017).
No DOI found

164. "*Search for the ^{73}Ga ground-state doublet splitting in the β decay of ^{73}Zn*", V. Vedia, V. Paziy, L.M. Fraile, H. Mach, W. B. Walters, A. Aprahamian, C. Bernards, J. A. Briz, B. Bucher, C. J. Chiara, Z. Dlouhý, Gheorghe, D. Ghit¸a, P. Hoff, J. Jolie, U. Köster, W. Kurcewicz, R. Lica, N. Marginean, R. Marginean, B. Olaizola, J.-M. Régis, M. Rudigier, T. Sava, G. S. Simpson, M. Stanoiu, Phys. Rev. C 96, 034311 (2017).
DOI, 10.1103/**PhysRevC**.96.034311.

163. "*Beta decay of ^{66}Mn to the N = 40 nucleus ^{66}Fe*", B Olaizola, L M Fraile, H Mach1, A Poves, A Aprahamian, J A Briz, J Cal-González, D Ghiţa, U Köster, W Kurcewicz , Journal of Physics G: Nuclear and Particle Physics, Volume 44, Number 12 (2017).
DOI: 10.1088/1361-6471/aa915e

162. "*Proton capture reaction cross section measurements on ^{162}Er as a probe of statistical model calculations*", N. Özkan, R. T. Güray, C. Yalçın, W. P. Tan, A. Aprahamian, M. Beard, R. J. deBoer, S. Almaraz-Calderon, S. Falahat, J. Görres, Q. Li, A. Sauerwein, K. Sonnabend, M. Wiescher, Zs. Fülöp, Gy. Gyürky, E. Somorjai, and J. Greene, Phys. Rev. C 96, 045805 – Published 10 October 2017.
https://doi.org/10.1103/PhysRevC.96.045805

161. "*Quenching measurements and modeling of a boron-loaded organic liquid scintillator*" S.Westerdale, J. Xu, E. Shields, F. Froborg, F. Calaprice, T. Alexander, A. Aprahamian, H.O. Back, C. Casarella, X. Fan, Published 3 August 2017 • © 2017 IOP Publishing Ltd and Sissa Medialab, Journal of Instrumentation, Volume 12, P08002 (2017).
DOI: 10.1088/1748-0221/12/08/P08002

160. "*A measurement of the ionization efficiency of nuclear recoils in silicon*", F. Izraelevitch,b,d D. Amidei,f A. Aprahamian,g R. Arcos-Olalla,e G. Cancelo,d C. Casarella,g A. E. Chavarria,c P. Collon,g J. Estrada,d G. Fernández Moroni,d Y. Guardincerri,d G. Gutiérrez,d A. Gyurjinyan,g A. Kavner,f B. Kilminster,h J. Liao,h Q. Liu,g M. López,a J. Molina,a P. Privitera,c M. A. Reyes,e V. Scarpine,d K. Siegl,g M. Smith,g S. Strauss,g W. Tan,g J. Tiffenbergd and L. Villanuevae, Journal of Instrumentation, Volume 12, P06014, (2017).
DOI: 10.1088/issn.1748-0221/12/06/P06014

159. "*Search for shape-coexisting 0^+ states in 66Ni from lifetime measurements*", B. Olaizola, L. M. Fraile, H. Mach, A. Poves, F. Nowacki, A. Aprahamian, J. A. Briz, J. Cal-González, D. Ghiţa, U. Köster, W. Kurcewicz, S. R. Lesher, D. Pauwels, E. Picado, D. Radulov, G. S. Simpson, and J. M. Udías, Phys. Rev. C 95, 061303(R) (2017).
https://doi.org/10.1103/**PhysRevC**.95.061303

158. "*Lifetime measurements of low-spin negative parity levels in Gd-160*", S. R. Lesher, C. Casarella, A. Aprahamian, L. M. Robledo, B. P. Crider, R. Ikeyama, I. R. Marsh, M. T. McEllistrem, E. E.

Peters, F. M. Prados-Estévez, M. K. Smith, Z. R. Tully, J. R. Vanhoy, and S. W. Yates, Phys. Rev. C 95, 064309 (2017).
https://doi.org/10.1103/**PhysRevC**.95.064309

157. "*Low-lying level structure of ^{56}Cu and its implications on the rp-process*", W-J. Ong,C. Langer, F. Montes, A. Aprahamian, D. W. Bardayan, _ D. Bazin,1 B. A. Brown, J. Browne, H. Crawford, R. Cyburt, E. B. Deleeuw, C. Domingo-Pardo, A. Gade, S. George, y P. Hosmer, L. Keek, A. Kontos, I-Y. Lee, A. Lemasson, E. Lunderberg, Y. Maeda, M. Matos, Z. Meisel, S. Noji, F. M. Nunes, Nystrom, G. Perdikakis, J. Pereira, S. J. Quinn, F. Recchia, H. Schatz, M. Scott, K. Siegl, A. Simon, z M. Smith, A. Spyrou, J. Stevens, S. R. Stroberg, D. Weisshaar, J. Wheeler, K. Wimmer, and R. G. T. Zegers, Phys. Rev. C 95, 055806 (2017).
https://doi.org/10.1103/PhysRevC.95.055806

156. "*Lifetime Measurements in ^{162}Dy*", A. Aprahamian, S.R. Lesher, C. Casarella, H.G. Borner, and M. Jentschel, Phys. Rev. C 95, 024329 (2017).
Doi.org/10.1103/PhysRevC.95.024329

155. "*Multiscale X-ray fluorescence mapping complemented by Raman spectroscopy for pigment analysis of a 15th century Breton manuscript*" By: Manukyan, K. V.; Guerin, B. J.; Stech, E. J.; et al., ANALYTICAL METHODS Volume: 8 Issue: 42 Pages: 7696-7701 Published: 2016
https://doi.org/10.1039/C6AY02301K

154. "*Uncorrelated nuclear mass uncertainties and r-process abundance predictions*" By: Surman, Rebecca; Mumpower, Matthew; Aprahamian, Ani ACTA PHYSICA POLONICA B Volume: 47 Issue: 3 Pages: 673-679 Published: MAR 2016
DOI: 10.5506/APhysPolB.47.673

153. "*First operation and mass separation with the CARIBU MR-TOF*" Hirsh, Tsviki Y.; Paul, Nancy; Burkey, Mary; et al., Conference: 17th International Conference on Electromagnetic Isotope Separators and Related Topics (EMIS2015)Location: Michigan State Univ, Grand Rapids, NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS Volume: 376 Pages: 229-232, Published: JUN 1 2016
DOI: 10.1016/j.nimb.2015.12.037

152. "*Evidence for a 3.8 MeV state in Be-9*" Smith, R.; Wheldon, C.; Freer, M.; et al. PHYSICAL REVIEW C Volume: 94 Issue: 1 Article Number: 014320 Published: JUL 25 2016
https://doi.org/10.1103/PhysRevC.94.014320

151. "*The impact of individual nuclear properties on r-process nucleosynthesis*", M. Mumpower, R. Surman, G.C. McLaughlin, and A. Aprahamian, J. Prog. Part. Nucl. Phys. 87, 116 (2016).
https://doi.org/10.1016/j.ppnp.2015.09.001

150. "*The impact of individual nuclear properties on r-process nucleosynthesis*", M. Mumpower, R. Surman, G.C. McLaughlin, and A. Aprahamian, J. Prog. Part. Nucl. Phys. 86 C, 86-126 (2016).
http://dx.doi.org/10.1016/j.ppnp.2015.09.001

149. "*Shell structure from nuclear observables*", I. Bentley, Y. Colón Rodríguez, S. Cunningham, and A. Aprahamian, Phys. Rev. C 93, 044337 (2016). https://doi.org/10.1103/PhysRevC.93.044337

148. "*Measurements of conversion electrons in the s-process branching point nucleus ^{176}Lu*", A. Battaglia, W. Tan, R. Avetisyan, C. Casarella, A. Gyurijinyan, K.V. Manukyan, S.T. Marley, A. Nystrom, N. Paul, K. Siegl, K. Smith, M.K. Smith, S.Y. Strauss and A. Aprahamian, European Journal of Phys. A 52, 126 (2016). https://doi.org/10.1140/epja/i2016-16126-x

147. "*^{8}Be+^{8}Be and ^{12}C+α breakup states in ^{16}O populated via the $^{13}C(^{4}He,4α)n$ reaction*", N. Curtis, S. Almaraz-Calderon, A. Aprahamian, N. I. Ashwood, M. Barr, B. Bucher, P. Copp, M. Couder, X. Fang, M. Freer, G. Goldring, F. Jung, S. R. Lesher, W. Lu, J. D. Malcolm, A. Roberts, W. P. Tan, C. Wheldon, and V. A. Ziman, Phys. Rev. C 94, 034313 (2016). https://doi.org/10.1103/PhysRevC.94.034313

146. "*Collectivity of 0^{+} states in ^{160}Gd*" S.R. Lesher, C. Casarella, A. Aprahamian,2 B. P. Crider, R. Ikeyama, I. R. Marsh, M. T. McEllistrem, E. E. Peters, F. M. Prados-Est´evez, M. K. Smith, Z. R. Tully, J. R. Vanhoy,5 and S. W. Yates, Phys. Rev. C 91, 05431 (2015)

145. "*Uncorrelated nuclear mass uncertainties and r-process abundance predictions*", R. Surman, M. Mumpower, and A. Aprahamian, Mazurian Lakes, Piatske (2015).

144. "*New lifetime measurements in ^{109}Pd and the onset of deformation at N=60*", By: B. Bucher, H. Mach, A. Aprahamian, G. S. Simpson, J. Rissanen, D. G. Ghiţă, B. Olaizola, W. Kurcewicz, J. Äystö, I. Bentley, T. Eronen, L. M. Fraile, A. Jokinen, P. Karvonen, I. D. Moore, H. Penttilä, M. Reponen, E. Ruchowska, A. Saastamoinen, M. K. Smith, and C. Weber, PHYSICAL REVIEW C Volume: 92 Issue: 6 Article Number: 064312 Published: DEC 14 2015.

143. "*The sensitivity of $LaBr^{3}$:Ce scintillation detectors to low energy neutrons: Measurement and Monte Carlo simulation*", J.L. Tain, J. Agramunt, A. Algora, A. Aprahamian, D. Cano-Ott, L.M. Fraile, C. Guerrero, M.D. Jordan, H. Mach, T. Martinez, E. Mendoza, M. Mosconi, R. Nolte, NIM A 774, 17-24 (2015).

142. "*Nuclear Structure and Setting Constraints on the r-process*" By: Aprahamian, Ani, Book Group Author(s): IOP, Conference: 1st NUBA International Conference on Nuclear Physics and Astrophysics Location: Akdeniz Univ, Antalya, TURKEY Date: SEP 14-21, 2014, NUBA CONFERENCE SERIES -1: NUCLEAR PHYSICS AND ASTROPHYSICS Book Series: Journal of Physics Conference Series Volume: 590, Article Number: 012015 Published: 2015.

141. "*Variances in r-process predictions from uncertain nuclear rates*" By: Mumpower, Matthew; Surman, Rebecca; Aprahamian, Ani, Book Group Author(s): IOP, Conference: 3rd Workshop on FAIRNESS - FAIR Next Generation ScientistS Location: Vietri sul Mare, ITALY Date: SEP 22-27, 2014, FAIRNESS 2014: FAIR NEXT GENERATION SCIENTISTS 2014 Book Series: Journal of Physics Conference Series Volume: 599 Article Number: 012031 Published: 2015.

140 "*The impact of global nuclear mass model uncertainties on r-process abundance predictions*" By: Mumpower, M.; Surman, R.; Aprahamian, A. Edited by: Schwengner, R; Zuber, K, Conference: 15th International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics (CGS) Location: Dresden, GERMANY Date: AUG 25-29, 2014 Published as CGS15 - CAPTURE GAMMA-RAY SPECTROSCOPY AND RELATED TOPICS Book Series: EPJ Web of Conferences Volume: 93 Article Number: 03003 Published: 2015.

139. "*The impact of uncertain nuclear masses near closed shells on the r-process abundance pattern*" By: Mumpower, M.; Surman, R.; Fang, D. L.; et al. JOURNAL OF PHYSICS G-NUCLEAR AND PARTICLE PHYSICS Volume: 42 Issue: 3 Article Number: 034027 Published: MAR 2015.

138. "*Impact of individual nuclear masses on r-process abundances*" M.R. Mumpower, R. Surman, D.-L. Fang, M. Beard, P. Möller, T. Kawano, and A. Aprahamian, Phys. Rev. C 92, 035807 (2015).

137. "*Scintillation efficiency measurement of Na recoils in NaI(Tl) below the DAMA/LIBRA energy threshold*", J. Xu, E. Shields, F. Calaprice, S. Westerdale, F. Froborg, B. Suerfu, T. Alexander, A. Aprahamian, H. O. Back, C. Casarella, X. Fang, Y. K. Gupta, A. Ianni, E. Lamere, W. H. Lippincott, Q. Liu, S. Lyons, K. Siegl, M. Smith, W. Tan, and B. Vande Kolk, Phys. Rev. C 92, 015807 (2015).

136. "*Systematic Evaluation of the Nuclear Binding Energies as Functions of F-spin*" A.I. Georgieva, A. Aprahamian, I. Bentley, A. Teymurazyan, A. Nystrom, Bulg. J. Phys. 42, 544-553 (2015).

135. "*Irradiation-Enhanced Reactivity of Multilayer Al/Ni Nanomaterials*" K.V. Manukyan, W. Tan, R.J. deBoer, E.J. Stech, A. Aprahamian, M. Wiescher, S. Rouvimov, K.R. Overdeep, C.E. Shuck, T.P. Weihs, and A.S. Mukasyan, ACS APPLIED MATERIALS & INTERFACES Volume: 7 Issue: 21 Pages: 11272-11279 Published: 2015.

134. "*Structure of the N=40 nucleus ^{66}Fe*", B. Olaizola, L.M. Fraile, H. Mach, A. Aprahamian,3 J.A. Briz, J. Cal-Gonz_alez, D. Ghit, U. Koster, W. Kurcewicz, S.R. Lesher, D. Pauwels, E. Picado, A. Poves, D. Radulov, G.S. Simpson, and J.M. Udias, submitted to Phys. Rev C. 11/2015.

133. "*Measurement of Scintillation and Ionization Yield and Scintillation Pulse Shape from Nuclear Recoils in Liquid Argon*", H. Cao, T. Alexander, A. Aprahamian, R. Avetisyan, H. O. Back, A. G. Cocco, F. DeJongh, G. Fiorillo, C. Galbiati, L. Grandi, Y. Guardincerri, C. Kendziora, W. H. Lippincott, C. Love, S. Lyons, L. Manenti, C. J. Martoff, Y. Meng, D. Montanari, P. Mosteiro, D. Olvitt, S. Pordes, H. Qian, B. Rossi, R. Saldanha, S. Sangiorgio, K. Siegl, S. Y. Strauss, W. Tan, J. Tatarowicz, S. Walker, H. Wang, A. W. Watson, S. Westerdale, and J. Yoo, Phys. Rev. D 91, 092007 (2015).

132. "*The impact of uncertain nuclear masses near closed shells on the r-process abundance pattern*", M. Mumpower, D. L. Fang, R. Surman, M. Beard, A. Aprahamian, J. Phys. G-Nuclear & Particle Physics, Vol. 42, 034027, 2015.

131. "*First application of the γ-summing technique in inverse kinematics*" S.J. Quinn; A. Spyrou; A. Simon; A. Battaglia; M. Bowers; B. Bucher; C. Casarella; M. Couder; P.A. Deyoung; A.C. Dombos; et al., NIM A 757: 62-66 (2014).

130. "*Measurement of the ^{58}Ni(α, γ) ^{62}Zn reaction and its astrophysical impact*" S.J. Quinn; A. Spyrou; E. Bravo; T. Rauscher; A. Simon; A. Battaglia; M. Bowers; B. Bucher; C. Casarella; M. Couder; et al. Physical Review C 89 (5), (2014).

129. "*The sensitivity of r-process nucleosynthesis to individual β-delayed neutron emission probabilities*", R. Surman, M. Mumpower, A. Aprahamian, ARIS (2014).

128. "*Nuclear masses near N = 82 that influence r-process abundances*", Matthew Mumpower, Rebecca Surman, Mary Beard, Dong-Liang Fang, Ani Aprahamian, NIC 2014 Proceedings (2014).

127. "The impact of global nuclear mass model uncertainties on r-process abundance predictions", M. Mumpower, R. Surman, and A. Aprahamian, Eur. Phys. Journal, EPJ 66, 07024 (2014).

126. "*Sensitivity Studies for the main r-process: neutron capture rates*", R. Surman, M. Mumpower, G. Passucci, R. Surman, A. Aprahamian, AIP Advances 4, 041009, 2014.

125. "*Sensitivity studies for a main r process: β-decay rates*", M. Mumpower, J. Cass, G. Passucci, R. Surman, A. Aprahamian, AIP Advances 4, 041009, 2014.

124. "*Sensitivity studies for a main r process: nuclear masses*", A. Aprahamian, I. Bentley, M. Mumpower, R. Surman, AIP Advances 4, 041101, 2014.

123. "*Low-lying isomeric states in ^{80}Ga from the β- decay of ^{80}Zn*", R. Lica, N. Marginean, D.G. Ghita, H. Mach, L.M. Fraile, G.S. Simpson, A. Aprahamian, C. Bernards, J.A. Briz, B. Bucher, C.J. Chiara, Z. Dlouhy, I. Gheorghe, P. Hoff J. Jolie, U. Koster, W. Kurcewicz, R. M_arginean, B. Olaizola, V. Paziy, J.M. Regis, M. Rudigier, T. Sava, M. Stanoiu, L. Stroe, and W.B. Walters, Physical Rev. C 90, 014320, 2014.

122. "*Measurement of astrophysically important excitation energies of ^{58}Zn with GRETINA*", C. Langer, F. Montes, A. Aprahamian, A.; et al. Edited by: S. Lunardi, P.G. Bizzeti, S. Kabana, et al. INPC 2013 - INTERNATIONAL NUCLEAR PHYSICS CONFERENCE, VOL. 2 Book Series: EPJ Web of Conferences, Volume: 66, Article Number: 07013 Published: 2014.

121. "*Identification of important resonances for rp-process reactions with GRETINA*", C. Langer, F. Montes, A. Aprahamian, D. W. Bardayan, D. Bazin, B. A. Brown, J. Browne, H. Crawford, R. Cyburt, C. Domingo-Pardo, A. Gade, S. George, P. Hosmer, L. Keek, A. Kontos, I-Y. Lee, A. Lemasson, E. Lunderberg,Y. Maeda, M. Matos, Z. Meisel,S. Noji, F. M. Nunes, A. Nystrom, G. Perdikakis, J. Pereira, S. J. Quinn, F. Recchia,H. Schatz, M. Scott, K. Siegl, A. Simon, M. Smith, A. Spyrou, J. Stevens, S. R. Stroberg, D. Weisshaar, J. Wheeler, K. Wimmer, and R. G. T. Zegers., Phys. Rev. Lett. 113, 032502, 2014.

120. "*Sensitivity studies for r-process nucleosynthesis in three astrophysical scenarios*", Surman, R.; Mumpower, M.; Cass, J.; et al. Edited by: Lunardi, S; Bizzeti, PG; Kabana, S; et al., Conference: International Nuclear Physics Conference (INPC) Location: Firenze, ITALY Date: JUN 02-07, 2013 Sponsor(s): Ist Nazl Fisica Nucl; Univ Firenze; Univ Milano; Univ Padova INPC 2013 -

INTERNATIONAL NUCLEAR PHYSICS CONFERENCE, VOL. 2 Book Series: EPJ Web of Conferences, Volume: 66, Article Number: 07024, Published: 2014.

119. "*Inelastic Neutron Scattering on ^{160}Gd*", Lesher, S. R.; Casarella, C.; Crider, B. P.; et al. Edited by: Lunardi, S; Bizzeti, PG; Kabana, S; et al., Conference: International Nuclear Physics Conference (INPC) Location: Firenze, ITALY Date: JUN 02-07, 2013 INTERNATIONAL NUCLEAR PHYSICS CONFERENCE, VOL. 1 Book Series: EPJ Web of Conferences, Volume: 66, Article Number: 02063, Published: 2014.

118. "*Structure of ^{81}Ga populated from the beta(-) Decay of ^{81}Zn*", Paziy, V., Mach, H, Fraile, L. M., Aprahamian, A., Bernards, C., Briz, J. A., Bucher, B., Chiara, C. J., Dlouhy, Z., Gheorghe, I., AIP Conference Proceedings Volume: 1541, Pages: 185-186 , DOI: 10.1063/1.4810839, 2013.

117. "*Sensitivity studies for r-process nucleosynthesis in three astrophysical scenarios*", R. Surman, M. Mumpower, J. Cass, I. Bentley, A. Aprahamian, and G.C. McLaughlin, EPJ , Proceedings of the International Nuclear Physics Conference (INPC), (2013).

116. "*Sensitivity Studies for a main r-process: beta decay rates*", M. Mumpower, J. Cass, G. Passucci, R. Surman, and A. Aprahamian, AIP Advances special topics issue "Stardust: Progress and Problems in Nuclear Astrophysics", 2013.

115. "*Sensitivity Studies for a main r-process: nuclear masses*", A. Aprahamian, I. Bentley, M. Mumpower, and R. Surman, AIP Advances special topics issue "Stardust: Progress and Problems in Nuclear Astrophysics", 2013.

114. "*Inelastic Neutron Scattering on ^{160}Gd*", S. R. Lesher, C. Casarella, B. P. Crider, I. Marsh, E. E. Peters, F. M. Prados-Estévez, M. Smith, J. R. Vanhoy, A. Aprahamian, and S. W. Yates, European Journal of Physics (2013).

113. "*Investigation of the 4-$\alpha\alpha$ linear chain state in ^{16}O*", N. Curtis, S. Almaraz-Calderon, A. Aprahamian, Ashwood, M. Barr, B. Bucher, P. Copp, M. Couder, X. Fang, M. Freer, G. Goldring, F. Jung, S.R.Lesher, W. Lu, J.D. Malcolm, A. Roberts, W.P. Tan, C. Wheldon, and V.A. Ziman, Phys. Rev. C 88, 064309 (2013).

112. "*Measurement of astrophysically important excitation energies of ^{58}Zn with GRETINA*", C. Langer, F. Montes, H. Schatz, A. Aprahamian, D. W. Bardayan, D. Bazin, B.A. Brown, J. Browne, H. Crawford, R. Cyburt,, C. Domingo-Pardo, A. Gade, S. George, P. Hosmer, L. Keek, A. Konto, I-Y. Lee, A. Lemasson, E. Lunderberg, Y. Maeda, M. Matos, Z. Meisel, S. Noji, A. Nystrom, G. Perdikakis, J. Pereira, S. Quinn, F. Recchia, M. Scott, K. Siegl, A. Simon, M. Smith A. Spyrou, J. Stevens, R. Stroberg, D. Weisshaar, J. Wheeler, K. Wimmer, and R.G.T. Zegers, European Physics Journal (2013).

111. "*β- decay of ^{65}Mn to ^{65}Fe*", B. Olaizola, L.M. Fraile, H. Mach, A. Aprahamian, J.A. Briz, J. Cal-Gonz_alez, D. Ghita, U. Koester, W. Kurcewicz, S.R. Lesher, D. Pauwels, E. Picado, A. Poves, D. Radulov, G. Simpson, and J.M. Ud, Phys. Rev. C 88, 044306 (2013).

110. "*Yield measurements for resonances above the multi-α threshold in ^{20}Ne*", Tz. Kokalova, M. Freer, N. Curtis, N.I. Ashwood, M. Barr, J.D. Malcolm, C. Wheldon, V.A. Ziman, S. Almaraz-Calderon, A. Aprahamian, B. Bucher, M. Couder, X. Fang, F. Jung, W. Lu, A. Roberts, W.P. Tan, P. Copp, and S. Lesher, Phys. Rev. C 87, 057309 (2013).

109. "*The sensitivity of r-process nucleosynthesis to the properties of neutron-rich nuclei*", R. Surman, M. Mumpower, J. Cass, A. Aprahamian, Proceedings of the 5th International Conference on Fission and Properties of Neutron-Rich Nuclei (ICFN5), World Scientific (2013).[arXiv:1309.0058]

108. "*The level Structure of ^{30}S and its astrophysical implications*", S. Almaraz-Calderon, W. P. Tan, A. Aprahamian, M. Beard, G. P. A. Berg, B. Bucher, M. Couder, J. Gorres, S. O'Brien, D. Patel, A. Roberts, K. Sault, M. Wieschery C. R. Brune and T. N. Massey, K. Fujita, K. Hatanaka, H. Matsubara, H. Okamura, H. J. Ong, Y.Sakemi, Y. Shimizu,z T. Suzuki, Y. Tameshige,x A. Tamii, and J. Zenihiro, T. Kubo, Y. Namiki, Y. Ohkuma, Y. Shimbara, S. Suzuki, R. Watanabe, R. Yamada, T. Adachi, Y. Fujita, H. Fujita, M. Dozono and T. Wakasa, Phys. Rev. C 86, 065805 (2012).

107. "*Sensitivity of the r-process to Nuclear Masses*", S. Brett, I. Bentley, N. Paul, R. Surman, and A. Aprahamian, European Physics Journal, A 48, 184 (2012). [arXiv:1211.7310]

106. "*Beta-decay and the r-process*", J. Cass, G. Passucci, R. Surman, and A. Aprahamian, Proceedings of the XII International Conference of Nuclei in the Cosmos, held in Cairns, Australia, August 5-12, 2012. Proceedings of Science, NIC-XII 154 (2012).

105. "*Search for signatures of N=56 sub-shell from -decay of nuclei around ^{90}Se relevant to the r-process*", M.Quinn, J. Pereira, A. Aprahamian, O. Arndt, T. Baumann, A. Beceril, T. Elliott, A. Estrade, D. Galaviz, T. Ginter, M. Hausmann, S. Hennrich, R. Kessler, K.-L. Kratz, G. Lorusso, P.F. Mantica, M. Matos, F. Montes, B. Pfeiffer, M. Portillo, H. Schatz, F.Schertz, L. Schnorrenberger, E. Smith, A. Stolz, W.B. Walters, and A. Woehr, Phys. Rev. C 85, 035807 (2012).

104. "*The Level Structure of ^{18}Ne, and its importance to the ^{14}O(α,p)^{17}F reaction rate*", S. Almaraz-Calderon, W. P. Tan, A. Aprahamian, A. Roberts, M. Wiescher, C. Brune, Z. Heinen, T. Massey, N. Ozkan, R.T. Guray, and H. Mach, Phys. Rev. C 86, 029901 (2012).

103. "*Origin of the Heavy Elements*", A. Aprahamian, Year Book 2012, published by McGraw-Hill, (http://www.accessscience.com), 2012.

102. "*A new ^{12}C state at 13.3 MeV?*", M. Freer, S. Almaraz-Calderon, Aprahamian, N.I. Ashwood, M. Barr, B. Bucher, P. Copp, M. Couder, N. Curtis, X. Fang, F. Jung, S. Lesher, W. Lu, J.D. Malcolm, A. Roberts, W.P. Tan, C. Wheldon, and V.A. Ziman, Phys. Rev. C 83, 034314, 2011.

101. "*Half-lives and branchings for beta-delayed neutron emission for neutron rich Co-Cu isotopes in the r-process*", P. Hosmer, H. Schatz, A. Aprahamian, O. Arndt, R. R. C. Clement, A. Estrade, K. Farouqi, K.-L. Kratz, S. N. Liddick, A. F. Lisetskiy, P. F. Mantica, P. Moeller, W. F. Mueller, F.

Montes, A.C. Morton, M. Ouellette, E. Pellegrini, B. Pfeifer, P. Reeder, P. Santi, M. Steiner,A. Stolz, B. E. Tomlin, W. B. Walters, and A. Woehr, Phys. Rev. C 82, (2010).

100. "*Beta-Decay half-lives and beta-delayed neutron emission probabilities for nuclei in the region of A=110, relevant for the r-process*", J. Pereira, S. Hennrich, M. Quinn, A. Aprahamian, O. Arndt, A. Becceril, T. Elliot, A. Estrade, D. Galaviz, R. Kessler, K.-L. Kratz, G. Lorusso, P.F. Mantica, M. Matos, F. Montes, B. Pfeiffer, H. Schatz, F. Schertz, L. Schnorrenberger,E. Smith, W.B. Walters, and A. Wohr, Phys. Rev. C 79, 035806 (2009).

99. "*Beta-Decay studies of r-process nuclei at NSCL*", J. Pereira, A. Aprahamian, O. Arndt, A. Becceril, T. Elliot, A. Estrade, D. Galaviz, S. Hennrich, P. Hosmer, L. Schnoreenberger, R. Kessler, K.-L. Kratz, G. Lorusso, P.F. Mantica, M. Matos, F. Montes, B. Pfeiffer, M. Quinn, P. Santi, H. Schatz, F. Schertz, E. Smith, B.E. Tomlin, W.B. Walters, and A. Wohr, Nucl. Phys. A 805, 470c (2008).

98. "*T=3/2 states in ^{13}C*", B. B. Skorodumov, G.V. Rogachev, A. Aprahamian, V.Z., Goldberg, J.J. Kolata, S. Almaraz, H. Amro, E.D. Johnson, L.O. Lamm, M. Quinn, A. Teymurazyan, R.E. Tribble, and A. Woehr, Phys. Rev. C 78, 044603 (2008).

97. "*TOF-Bρ mass measurements of very exotic nuclides for astrophysical calculations at the NSCL*" M Matoš, A Estrade, M Amthor, A Aprahamian, D Bazin, A Becerril, T Elliot, D Galaviz, A Gade, S Gupta, G Lorusso, F Montes, J Pereira, M Portillo, A M Rogers, H Schatz, D Shapira, E Smith, A Stolz and M Wallace Journal of Physics G - Volume: 35, Issue: 1, 014045 (2008).

96. "*Measurement of Conversion Electrons with the $^{208}Pb(p,n)^{208}Bi$ Reaction and Derivation of the Shell Model Proton Neutron Hole Interaction from the Properties of ^{208}Bi",* K.H. Maier, T. Kibedi, G.D. Dracoulis, P. Boutachkov, A. Aprahamian, A.P. Byrne, P.M. Davidson, G.J. Lane, M. Marie-Jeanne, P. Nieminen, and H. Watanabe, Phys. Rev. C 76, 064304 (2007).

95. "*Lowest excited states in ^{13}O"*, B.B. Skorodumov, G.V.Rogachev, P. Boutachkov, A. Aprahamian, V.Z. Goldberg, S. Almarez, H. Amro, F.D. Becchetti, S. Brown, Y. Chen, H. Jiang, J.J. Kolata, L.O. Lamm, M. Quinn, and A. Woehr, Phys. Rev. C 75, 024607 (2007).

94. "*Investigation of the ^{19}Na nucleus via resonance elastic scattering*", B.B. Skorodumov, G.V. Rogachev, P. Boutachkov, A. Aprahamian, J.J. Kolata, L.O. Lamm, M. Qunn and A. Woehr, Physics of Atomic Nuclei 69, 1979 (2006).

93. "*β-decay half-lives and β-delayed neutron emission probabilities for neutron rich nuclei close to the N = 82 r-process path*," F. Montes, A. Estrade, P.T. Hosmer, S.N. Liddick, P.F. Mantica, A.C. Morton, W.F. Mueller, M. Ouellette, E. Pellegrini, P. Santi, H. Schatz, A. Stolz, B.E. Tomlin, O. Arndt, K.-L. Kratz, B. Pfeiffer, P. Reeder, W.B. Walters, A. Aprahamian, and A. Wöhr, Phys. Rev. C 73, 035801 (2006).

92. "*Investigation of the ^{19}Na nucleus via resonance elastic scattering*," B.B. Skorodumov, G.V. Rogachev, P. Boutachkov, A.Aprahamian, J.J. Kolata, L.O. Lamm, M. Quinn, and A. Woehr, Physics of Atomic Nuclei 69, 1979 (2006).

91. "*Study of the low spin states of ^{208}Bi through γ-γ spectroscopy*," P. Boutachkov, K.H. Maier, A. Aprahamian, G.V. Rogachev, L.O. Lamm, M. Quinn, B.B. Skorodumov, A. Wöhr, Nucl. Phys. A 768, 22-42 (2006).

90. "*Complete Spectroscopy of the ^{162}Dy nucleus*," A. Aprahamian, X. Wu, S.R. Lesher, D.D. Warner, W. Gelletly, H.G. Börner, F. Hoyler, K. Schreckenbach, R.F. Casten, Z.R. Shi, D. Kusnezov, M. Ibrahim, A.O. Macchiavelli, M.A. Brinkman, and J.A. Becker, Nucl. Phys. A 764, 42-78 (2006).

89. "*Isomers in neutron-rich A≃190 nuclides from ^{208}Pb fragmentation,"* M. Caamano, P.M. Walker, P.H. Regan, M. Pfützner, Zs. Podolyák, J. Gerl, M. Hellström, P. Mayet, M.N. Mineva, A. Aprahamian et al., The European Physical Journal A – Hadrons and Nuclei, 23, 2, 201-215 (2005).

88. "*Isobaric analog states as a tool for spectroscopy of exotic nuclei*," G.V. Rogachev, A.A. Aprahamian, F.D. Becchetti, P. Boutachkov, Y. Chen, G. Chubarian, P.A. DeYoung, A. Fomichev, V.Z. Goldberg, M.S. Golovkov et al., Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms, 241, 1-4, 977-982 (2005).

87. "*Systematics in the structure of low-lying, non-yrast band-head configurations of strongly deformed nuclei*," G. Popa, A. Aprahamian, A. Georgieva, and J.P. Draayer, Euro. Phys. J. A25, s01, 451-452 (2005).

86. "*The half-life of the doubly-magic r-process nucleus ^{78}Ni*," H. Schatz, P.T. Hosmer, A. Aprahamian, O. Arndt, R.R.C. Clement, A. Estrade, K.-L. Kratz, S.N. Liddick, P.F.Mantica, W.F. Mueller, F. Montes, A.C. Morton, M. Ouellette, E. Pellegrini, B. Pfeiffer, P. Reeder, P. Santi, M. Steiner, A. Stolz, B.E. Tomlin, W.B. Walters, and A. Wöhr, Euro. Phys. J. A25, s01, 639-642 (2005).

85. "*Isobaric analog states of neutron-rich nuclei. Doppler shift as a measurement tool for resonance excitation functions,*" P. Boutachkov, G.V. Rogachev, V.Z. Goldberg, A. Aprahamian, F.D. Becchetti, J.P. Bychowski, Y. Chen, G. Chubarian, P.A. DeYoung, J.J. Kolata, L.O. Lamm, G.F. Peaslee, M. Quinn, B.B. Skorodumov, and A. Wohr, Euro. Phys. J. A25, s01, 259-260 (2005).

84. "*Structure of neutron-rich even-even ^{124,126}Cd*," T. Kautzsch, A. Wöhr, W.B. Walters, K.-L. Kratz, B. Pfeiffer, M. Hannawald, J. Shergur, O. Arndt, S. Hennrich, S. Falahat, T. Griesel, O. Keller, A. Aprahamian, B.A. Brown, P.F. Mantica, M.A. Stoyer, H.L. Ravn, and the ISOLDE IS333 and Rochester CHICO/Gammasphere Collaborations, Euro. Phys. J. A25, s01, 117-118 (2005).

83. "*E2 transitions between positive and negative parity states of the ground state alternating parity bands*," T.M. Shneidman, R.V. Jolos, R. Krücken, A. Aprahamian, D. Cline, J.R. Cooper, M. Cromaz, R.M. Clark, C. Hutter, A.O. Macchiavelli, W. Scheid, and C.Y. Wu, Euro. Journal of Phys. A25, 387- 396 (2005).

82. "*β-decay half-lives and b-delayed neutron emission probabilities for neutron rich nuclei close to the N=82 r-process path*," F. Montes, A. Aprahamian, O. Arndt, A. Estrade, P.T. Hosmer, K.-L. Kratz, N. Liddick, P.F. Mantica, A.C. Morton, W.F. Mueller, M. Ouellette, E. Pellegrini, B.

Pfeiffer, P. Reeder, P. Santi, H. Schatz, A. Stolz, B.E. Tomlin, W.B. Walters, and A. Wöhr, Phys. Rev. 73, 035801 (2005).

81. "*Doppler shift as a tool for studies of isobaric analog states of neutron-rich nuclei: application to ^{7}He*," P. Boutachkov, G.V. Rogachev, V.Z. Goldberg, A. Aprahamian, F.D. Becchetti, J.P. Bychowski, Y. Chen, G. Chubarian, P.A. DeYoung, J.J. Kolata, L.O. Lamm, G.F. Peaslee, M. Quinn, B.B. Skorodumov, and A. Wöhr, Phys. Rev. Lett. 95, 132502 (2005).

80. "*Low energy 0^{+} excitations in ^{158}Gd*," Jorge Hirsh, Gabriela Popa, Ani Aprahamian, Carlos E. Vargas, Shelly R. Lesher, and Jerry P. Draayer, Revista Mexicana 52(1): 69-74 (2006).

79. "*β-decay studies close to the N=82 r-process path*," F. Montes, H. Schatz, A. Aprahamian, O. Arndt, A. Estrade, K.-L. Kratz, S.N. Liddick, P.F. Mantica, W.F. Mueller, P. Hosmer, A.C. Morton, M. Ouellette, E. Pellegrini, B. Pfeiffer, P. Reeder, P. Santi, A. Stolz, B.E. Tomlin, W.B. Walters, A. Wöhr, Nucl. Phys. A758, 643-646 (2005).

78. "*Nuclear structure of the exotic mass region along the rp process path*," Y. Sun, M. Wiescher, A. Aprahamian, and J. Fisker, Nucl. Phys. A758, 765-768c (2005).

77. "*Nuclear structure aspects in nuclear astrophysics*," A. Aprahamian, K. Langanke, and M. Wiescher, Progress in Particle and Nuclear Physics 54, 535-613 (2005).

76. "*Half-Life of the Doubly Magic r-Process Nucleus ^{78}Ni*," P.T. Hosmer, H. Schatz, A. Aprahamian, O. Arndt, R.R.C. Clement, A. Estrade, K.-L. Kratz, S.N. Liddick, P.F. Mantica, W.F. Mueller, F. Montes, A.C. Morton, M. Ouellette, E. Pellegrini, B. Pfeiffer, P. Reeder, P. Santi, M. Steiner, A. Stolz, B.E. Tomlin, W.B. Walters, and A. Wöhr, Phys. Rev. Lett. 94, 112501 (2005).

75. "*The Nature of low-lying $K^{\pi}= 0^{+}$ Bands in Nuclei*," A. Aprahamian, Yad. Fiz. (Soviet Journal of Nuclear Physics) 67, no. 9, 1-6 (2004) or Physics of Atomic Nuclei 67, no 9, 1750-1755 (2004).

74. "*Isomers in neutron-rich A ≈ 190 nuclides from ^{208}Pb fragmentation*" M. Caamaño, P. M. Walker, P. H. Regan, M. Pfützner, Zs. Podolyák, J. Gerl, M. Hellström, P. Mayet, M. N. Mineva, A. Aprahamian, J. Benlliure, et al., European Physical Journal A, 1434-6001 (2004).

73. "*Structure of Exotic ^{7}He and ^{9}He*," G.V. Rogachev, A. Aprahamian, F.D. Becchetti, P. Boutachkov, Y. Chen, G. Chubarian, P.A. DeYoung, A. Fomichev, V.Z. Goldberg, M.S. Golovkov, J.J. Kolata, Yu. Ts. Oganessian, G.F. Peaslee, M. Quinn, A. Rodin, B.B. Skorodumov, R.S. Slepnev, G. Ter-Akopian, W.H. Trzaska, A. Wöhr, and R. Wolski, Nucl. Phys. A746, 229c-235c (2004).

72. "*The N = Z rp-process waiting-point nucleus ^{68}Se and its astrophysical implications*," A. Wöhr, A. Aprahamian, P. Boutachkov, J.L. Galache, J. Görres, M. Shawcross, A. Teymurazyan, M.C. Wiescher, D.S. Brenner, C.N. Davids, S.M. Fischer, A.M. Heinz, R.V.F. Janssens, and D. Seweryniak, Nucl. Phys. A742, 349-362 (2004).

71. "*Prediction of Nuclear Masses as a Function of P and F-spin in the shell Z=28-50 and N=28-50*," A. Teymurazyan, A. Aprahamian, A. Georgieva, Transactions of Bulgarian Academy of Sciences, Vol. 9, 165-172 (2004).

70. "*From ripples to tidal waves: low lying vibrational motion in nuclei*," A. Aprahamian, Nucl. Phys. A731, 291-298 (2004).

69. "*Structure of exotic ^{7}He and ^{9}He*," G.V. Rogachev, A. Aprahamian, F.D. Becchetti, P. Boutachkov, Y. Chen, G. Chubarian, P.A. deYoung, A. Fomichev, V.Z. Goldberg, M.S. Golovkov, J.J. Kolata, Yu.Ts. Oganessian, G.F. Peaslee, M. Quinn, A. Rodin, B.B. Skorodumov, R.S. Slepnev, G. Ter-Akopian, W.H. Trzaska, A. Wöhr, and R. Wolski, Nucl. Physics A746, 229-235 (2004).

68. "*Analog states of ^{7}He observed via the ^{6}He(p,n) reaction*," G.V. Rogachev, P. Boutachkov, A. Aprahamian, F.D. Becchetti, Y. Chen, G. Chubarian, P.A. DeYoung, V.Z. Goldberg, J.J. Kolata, G.F. Peaslee, M. Quinn, B.B. Skorodumov, and A. Wohr, Phys. Rev. Lett. 92, 232502 (2004).

67. "*The lowest levels in ^{15}F and shell model potential for drip line nuclei*," V.Z. Goldberg, G.G. Chubarian, G. Tabacaru, L. Trache, R.E. Tribble, A. Aprahamian, G.V. Rogachev, B.B. Skorodumov, and X.D. Tang, Phys. Rev. C69, 031302 (2004).

66. "*Nuclear Structure of ^{159}Gd*," C. Granja, S. Pospíšil, A. Aprahamian, H. Börner, H. Lehmann, T. von Egidy, H.-F. Wirth, G. Graw, R. Hertenberger, Y. Eisermann, D. Nosek, L. Rubáček, and S.A. Telezhnikov, Phys. Rev. C70, 034316 (2004).

65. "*New Isomers in the Neutron-rich A ~ 190 Mass Region*," M. Caamaño, P.M. Walker, M. Pfützner, P.H. Regan, J. Gerl, M. Hellström, P. Mayet, K.-H. Schmidt, Zs. Podolyák, M.N. Mineva, A. Aprahamian, J. Benlliure, A.M. Bruce, P.A. Butler, D. Cortina Gil, D.M. Cullen, J. Döring, T. Enquist, C. Fox, J. Garcés Narro, H. Geissel, W. Gelletly, J. Giovinazzo, M. Górska, H. Grawe, R. Grzywacz, A. Kleinböhl, W. Korten, M. Lewitowicz, R. Lucas, H. Mach, C.D. O'Leary, F. De Oliveira, C.J. Pearson, F. Rejmund, M. Rejmund, M. Sawicka, H. Schaffner, Ch. Schlegel, K. Schmidt, P. Stevenson, Ch. Theisen, F. Vivès, D.D. Warner, C. Wheldon, H.J. Wollersheim, S. Wooding, F. Xu, European Physical Journal A, 10079-7 (2004).

64. "*Resonance yield of rays and neutrons in the interaction of neutron rich 6He with hydrogen*," G.V. Rogachev, P. Boutachkov, V.Z. Goldberg, A. Aprahamian, F.D. Becchetti, Y. Chen, G. Chubarian, P.A. DeYoung, J.J. Kolata, G.F. Peaslee, M. Quinn, B.B. Skorodumov, and A. Woehr, submitted to Phys. Rev. Lett. (2003).

63. "*Nature of excited 0^{+} states in ^{158}Gd described by the projected shell model*," Y. Sun, A. Aprahamian, J.-Y. Zhang, and C.-T. Lee, Phys. Rev. C68, 061301 (2003).

62. "*B(E2) values and the search for the critical point symmetry X(5) in ^{104}Mo and ^{106}Mo,"* C. Hutter, R. Krücken, A. Aprahamian, C.J. Barton, C.W. Beausang, M.A. Caprio, R.F. Casten, W.-T. Chou, R.M. Clark, D. Cline, J.R. Cooper, M. Cromaz, A.A. Hecht, A.O. Macchiavelli, N. Pietralla, M. Shawcross, M.A. Stoyer, C.Y. Wu, and N.V. Zamfir, Phys. Rev. C67, 054315 (2003).

61. "*Mass Measurement of ^{80}Y by β-coincidence spectroscopy*," C.J. Barton, D.S. Brenner, N.V. Zamfir, M.A. Caprio, A. Aprahamian, M.C. Wiescher, C.W. Beausang, Z. Berant, R.F. Casten, J.R. Cooper, R.L. Gill, R. Krücken, J.R. Novak, N. Pietralla, M. Shawcross, A. Teymurazyan, and A. Wolf, Phys. Rev. C67, 034310 (2003).

60. "*Rotational and vibrational excitations in ^{84}Zr studied through in-beam and ^{84}Nb β-decay spectroscopy*," J. Döring, R.A. Kaye, A. Aprahamian, M.W. Cooper, J. Daly, C.N. Davids, R.C. de Haan, J. Görres, S.R. Lesher, J.J. Ressler, D. Seweryniak, E.J. Stech, A. Susalla, S.L. Tabor, J. Uusitlo, W.B. Walters, and M. Wiescher, Phys. Rev. C67, 014315 (2003).

59. "*Nuclear cosmochronometry and universality in the r-process abundances*" Otsuki K, Mathews GJ, Kajino T, Honda S, Aoki W, Aprahamian A, Vaughan K, Nucl. Phys. A 721. 1024 c-1027c (2003).

58. "*In-Band and Inter-Band B(E2) Values within the Triaxial Projected Shell Model*," P. Boutachkov, A. Aprahamian, Y. Sun, J.A.Sheikh, and S. Frauendorf, Eur. Phys. J. A15, 455-458 (2002).

57. "*New 0$^+$ states in ^{158}Gd*," S.R. Lesher, A. Aprahamian, L. Trache, A. Oros, S. Deyliz, A. Gollwitzer, R. Hertenberger, B.D. Valnion, and G. Graw, Phys. Rev. C66, 051305(R) (2002).

56. "*Gamma-Ray Spectroscopy with a low-energy ^{6}He radioactive ion beam*," S.M. Vincent, A. Aprahamian, J.J. Kolata, L.O. Lamm, V. Guimarâes, R.C. de Haan, D. Peterson, P. Santi, A. Teymurazyan, F.D. Becchetti, T.W. O'Donnell, M. Lee, D.A. Roberts, J.A. Zimmerman, and J.A. Brown, Nucl. Instr. Methods in Phys. Res. A491, 426-436 (2002).

55. "*Lifetime Measurements of Excited K = 0$^+$ Bands in ^{178}Hf*," A. Aprahamian, R.C. de Haan, H.G. Börner, H. Lehmann, C. Doll, M. Jentschel, A.M. Bruce, and R. Piepenbring, Phys. Rev. C65, R031301 (2002).

54. "*Angular Momentum Population in the Fragmentation of ^{208}Pb at 1 GeV/nucleon*," M. Pfützner, P.H. Regan, P.M. Walker, M. Caamaño, J. Gerl, M. Hellström, P. Mayet, K.-H. Schmidt, Zs. Podolyák, M.N. Mineva, A. Aprahamian, J. Benlliure, A.M. Bruce, P.A. Butler, D. Cortina Gil, D.M. Cullen, J. Döring, T. Enquist, C. Fox, J. Garcés Narro, H. Geissel, W. Gelletly, J. Giovinazzo, M. Górska, H. Grawe, R. Grzywacz, A. Kleinböhl, W. Korten, M. Lewitowicz, R. Lucas, H. Mach, C.D. O'Leary, F. De Oliveira, C.J. Pearson, F. Rejmund, M. Rejmund, M. Sawicka, H. Schaffner, Ch. Schlegel, K. Schmidt, Ch. Theisen, F. Vivès, D.D. Warner, C. Wheldon, H.J. Wollersheim, and S. Wooding, Phys. Rev. C65, 064604 (2002).

53. "*Nuclear astrophysics: a new era*," M. Wiescher, P. Regan, and A. Aprahamian, Physics World, pp. 33-38, February 2002.

52. "*From Exploding Stars to the Laboratory: Nucleosynthesis in the rp-Process*," A. Aprahamian, A. Teymurazyan, A. Susalla, and N. Cuka, Hyperfine Interactions 132, 417-424 (2001).

51. *"The endpoint of the rp-process on accreting neutron stars,"* H. Schatz, A. Aprahamian, V. Barnard, L. Bildsten, A. Cumming, M. Ouellette, T. Rauscher, F.-K. Thielemann, and M. Wiescher, Nucl. Phys. A688, 150-153 (2001).

50. *"End Point of the rp Process on Accreting Neutron Stars,"* H. Schatz, A. Aprahamian, V. Barnard, Lars Bildsten, A. Cumming, M. Ouellette, T. Rauscher, F.-K. Thielemann, and M. Wiescher, Phys. Rev. Lett. 86, 3471-3474 (2001).

49. "*Pronounced shape change induced by quasiparticle alignment*", Algora A, de Angelis G, Brandolini F, Wyss R, Gadea A, Farnea E, Gelletly W, Lunardi S, Bazzacco D, Fahlander C, Aprahamian A, Becker F, Bizzeti PG, Bizzeti-Sona A, de Acuna D, De Poli M, Eberth J, Foltescu D, Lenzi SM, Martinez T, Napoli DR, Pavan P, Petrache CM, Alvarez CR, Rudolph D, Rubio B, Skoda S, Spolaore P, Menegazzo R, Thomas HG, Ur CA, Phys. Rev. C 61, 031303 (2000).

48. "*Decay Spectroscopy Using the HRIBF Recoil Mass Spectrometer*," C.J. Gross, T.N. Ginter, J.J. Ressler, J.C. Batchelder, R. Grzywacz, A. Piechaczek, W.B. Walters, M. Wiescher, K. Rykaczewski, A. Aprahamian, C.R. Bingham, Z. Janas, B.D. MacDonald, and E.F. Zganjar, Revista Mexicana Fisica 46, 107 (2000).

47. "*Isomer spectroscopy of neutron rich ^{190}W*," Zs. Podolyák, P.H. Regan, M. Pfützner, J. Gerl, M. Hellström, M. Caamaño, P. Mayet, Ch. Schlegel, A. Aprahamian, J. Benlliure, A.M. Bruce, P.A. Butler, D. Cortina Gil, D.M. Cullen, J. Döring, T. Enquist, F. Farget, C. Fox, J. Garcés Narro, W. Gelletly, J. Giovinazzo, M. Górska, H. Grawe, R. Grzywacz, A. Kleinböhl, W. Korten, M. Lewitowicz, R. Lucas, H. Mach, M. Mineva, C. O'Leary, F. De Oliveira, C.J. Pearson, M. Rejmund, M. Sawicka, H. Schaffner, K. Schmidt, C. Thiesen, P.M. Walker, D.D. Warner, C. Wheldon, H.J. Wollersheim, S. Wooding and F. Xu, Phys. Lett. B491, 225-231 (2000).

46. "*Decay spectroscopy using the HRIBF recoil mass spectrometer*", Gross CJ, Ginter TN, Ressler JJ, Batchelder JC, Grzywacz R, Piechaczek A, Walters WB, Wiescher M, Rykaczewski K, Aprahamian A, Bingham CR, Janas Z, MacDonald BD, Zganjar EF, Revista Mexicana de Fisica 46, 107-112 Suppl. 1 (2000).

45. "*Half-life Measurement for the rp-process Waiting Point Nuclide ^{80}Zr*," J.J. Ressler, A. Piechaczek, W.B. Walters, A. Aprahamian, M. Wiescher, J.C. Batchelder, C.R. Bingham, D.S. Brenner, T.N. Ginter, C.J. Gross, R. Grzywacz, D. Kulp, B. MacDonald, W. Reviol, J. Rikovska, K. Rykaczewski, J.A. Winter, and E.F. Zganjar, Phys. Rev. Lett. 84, 2104-2107 (2000).

44. "*Lifetime Measurements in ^{178}Hf*," R.C. deHaan, A. Aprahamian, H.G. Börner, C. Doll, M. Jentschel, A.M. Bruce, and S.R. Lesher, J. Res. Nat. Inst. Stand. Tech. 105, 125-133 (2000).

43. "*Low-Spin States from Decay Studies in the Mass 80 Region*," J. Döring, A. Aprahamian, and M. Wiescher, J. Res. Nat. Inst. Stand. Tech. 105, 43-52 (2000).

42. "*Collective $K\pi=0^+$ Vibrational Excitations in Nuclei,*" A. Aprahamian, R.C. deHaan, S.R. Lesher, J. Döring, A.M. Bruce, H.G. Börner, M. Jentschel, C. Doll, H. Lehmann, Journal of Physics G: Nucl. Part. Phys. 25, 685-689 (1999).

41. "*Radioactive decay of ^{80}Y and low-lying states in ^{80}Sr*," J. Döring, A. Aprahamian, R.C. deHaan, J. Görres, H. Schatz, M. Wiescher, W.B. Walters, L.T. Brown, C.N. Davids, C.J. Lister, and D. Seweryniak, Phys. Rev. C59, 59-70 (1999).

40. "*Recent Developments on the Star Detector System at RHIC*," H. Wieman et al., the STAR Collaboration, A. Aprahamian, N.N. Biswas, and U. Garg, Nucl. Phys. A638, 559c-563c (1998).

39. "*Lifetimes of states in the opposite-parity bands of ^{153}Eu: Recoil-distance measurements following Coulomb excitation*," J.F. Smith, M.W. Simon, R.W. Ibbotson, P.A. Butler, A. Aprahamian, A.M. Bruce, D. Cline, M. Devlin, G.D. Jones, P.M. Jones, and C.Y. Wu, Phys. Rev. C58, 3171-3180 (1998).

38. "*T=0 pairing correlations and band crossing phenomena in N=Z nuclei*," G. De Angelis, C. Fahlander, A. Gadea, W. Gelletly, A. Aprahamian, D. Bazzacco, F. Becher, P.G. Bizzeti, A. Bizzeti- Sona, F. Brandolini, D. de Acua, M. De Poli, J. Eberth, D. Foltescu, S. Lenzi, S. Lunardi, T. Martinez, D.R. Napoli, P. Pavan, C.M. Petrache, C. Rossi Alvarez, D. Rudolph, B. Rubio, W. Satula, S. Skoda, P. Spolaore, G. Thomas, C. Ur, and R. Wyss, Nucl. Phys. A630, 426-433c (1998).

37. "*Reaction Parameters for rp-Process Calculations above Z = 32*," H. Schatz, A. Aprahamian, J. Görres, M. Wiescher, F.-K. Thielemann, T. Rauscher, J.F. Rembges, B. Pfeiffer, P. Möller, K.-L. Kratz, H. Herndl, B.A. Brown, and H. Rebel, Physics Reports 294, 167 (1998).

36. "*New isomer in ^{80}Y*," J. Döring, H. Schatz, A. Aprahamian, R.C. deHaan, J. Görres, M. Wiescher, W.B. Walters, J. Rikovska, L.T. Brown, C.N. Davids, C.J. Lister, D. Seweryniak, and B. Foy, Phys. Rev. C57, 1159 (1998).

35. "*Band crossing phenomena in N = Z nuclei - A probe to T = 0 pairing correlations?*", de Angelis G, Fahlander C, Gadea A, Farnea E, Gelletly W, Aprahamian A, Bazzacco D, Becker F, Bizzeti PG, Bizzeti-Sona A, Brandolini F, De Acuna D, De Poli M, Eberth J, Foltescu D, Lenzi SM, Lunardi S, Martinez T, Napoli DR, Pavan P, Petrache CM, Alvarez CR, Rudolph D, Rubio B, Skoda S, Spolaore P, Thomas G, Ur C, Weiszflog M, Wyss R, ACTA PHYSICA HUNGARICA NEW SERIES-HEAVY ION PHYSICS 6 , 269-273, (1997).

34. "*Delayed $g^2_{9/2}$ alignment in the N=Z nucleus ^{72}Kr*," G. De Angelis, C. Fahlander, A. Gadea, W. Gelletly, A. Aprahamian, D. Bazzacco, F. Becher, P.G. Bizzeti, A. Bizzeti-Sona, F. Brandolini, D. de Acuña, M. De Poli, J. Eberth, D. Foltescu, S. Lenzi, S. Lunardi, T. Martinez, D.R. Napoli, P. Pavan, C.M. Petrache, C. Rossi Alvarez, D. Rudolph, B. Rubio, W. Satula, S. Skoda, P. Spolaore, G. Thomas, C. Ur, and R. Wyss, Phys. Lett. B415, 217 (1997).

33. "*The Astrophysical rp-process and Nuclear Structure in the A=80 Region of Nuclides*," A. Aprahamian, Proceedings of the 9th International Conference on Capture Gamma-Ray Spectroscopy and Related Topics, Springer, p. 535 (1997).

32. "*The endpoint of the rp-process*," H. Schatz, A. Aprahamian, J. Görres, M. Wiescher, F.K. Thielemann, T. Rauscher, J.F. Rembges, K.L. Kratz, B. Pfeiffer, P. Möller, H. Herndl, B.A. Brown, H. Rebel, Nucl. Phys. A621, 417c (1997).

31. "*Study of excited states in ^{208}Pb by particle-gamma coincidences with the ^{207}Pb(d,p)^{208}Pb and ^{209}Bi(t,alpha)^{208}Pb reactions*," M. Schramm, K.H. Maier, M. Rejmund, L.D. Wood, N. Roy, A. Kuhner, A. Aprahamian, J. Becker, M. Brinkman, D.J. Decman, E.A. Henry, R. Hoff, D. Manatt, L.G. Mann, R.A. Meyer, W. Stoeffl, G.L. Struble, and T.-F. Wang, Phys. Rev. C56, 1320-1337 (1997).

30. "*High-Spin States in ^{76}Br*," D.F. Winchell, L. Wehner, J.X. Saladin, M.S. Kaplan, E. Landulfo, and A. Aprahamian, Phys. Rev. C55, 111-119 (1997).

29. "*New High Spin States and Band Termination in ^{83}Y and ^{84}Zr*," T.D. Johnson, A. Aprahamian, C.J. Lister, D.J. Blumenthal, B. Crowell, P. Chowdury, P. Fallon, A.O. Machiavelli, Phys. Rev. C55, 1108 (1997).

28. "*Exotic Beams and Nuclear Structure in the A=80 Region of Nuclei*," A. Aprahamian, A. Gadala-Maria, N. Cuka, Revista Mexicana 42, 1 (1996).

27. "*The STAR Experiment at the Relativistic Heavy Ion Collider*," J.W. Harris et al., the STAR Collaboration, A. Aprahamian, N.N. Biswas and U. Garg, Nucl. Phys. A566, 277c (1994).

26. "*Multiphonon Vibrational States in Deformed Nuclei*," X. Wu, A. Aprahamian, S.M. Fischer, W. Reviol. G. Liu, and J.X. Saladin, Phys. Rev. C49, 1837 (1994).

25. "*Identical Bands and Multi-phonon Vibrations*," X. Wu, A. Aprahamian, J. Castro-Ceron, and C. Baktash, Phys. Lett. B316, 235 (1993).

24. "*Vibrational Degrees of Freedom in Deformed Nuclei*," A. Aprahamian, X. Wu, S.M. Fischer, W. Reviol, and J.X. Saladin, Revista Mexicana Fisica 39, Suplemento 2, 1 (1993).

23. "*Spectroscopy of ^{96,97,98}Ru*," W. Reviol, U. Garg, I. Ahmad, A. Aprahamian, M.P. Carpenter, B.F. David, R.V.F. Janssens, T.L. Khoo, T. Lauritsen, Y. Liang, S. Naguleswaran, J.C. Walpe, D. Ye, Nucl. Phys. A557, 391C (1993).

22. "*Vibrations in Deformed Nuclei*," A. Aprahamian, X. Wu, S.M. Fischer, W. Reviol, and J.X. Saladin, Inst. Phys. Conf. Ser. No. 132: Section 5, 585 (1993).

21. "*The enigma of ^{114}Cd. A classical case of ambiguities in quantum mechanical state mixing*," R.F. Casten, J. Jolie, H.G. Börner, D.S. Brenner, N.V. Zamfir, W.-T. Chou, and A. Aprahamian, Phys. Lett. B297, 19 (1992).

20. "*E1 transition in ^{168}Er*," A. Aprahamian, Phys. Rev. C64, 2093 (1992).

19. "*Evidence for the existence of two-phonon collective excitations in deformed nuclei*," H.G. Börner, J. Jolie, S.J. Robinson, B. Krusche, R. Piepenbring, R.F. Casten, A. Aprahamian and J.P. Draayer, Phys. Rev. Lett. 66, 691 (1991).

18. "*Decay of the 21/2$^-$ Isomer in ^{211}Bi and structure of the $vg^2_{9/2}\pi h_{9/2}$ Levels,"* K.H. Maier, A. Aprahamian, J.A. Becker, D.J. Decman, E.A. Henry, R.G. Lanier, L.G. Mann, R.A. Meyer, N. Roy, W. Stoeffl, and G. Struble, Z. Phys. A332, 263 (1989).

17. "*Picosecond Lifetime Measurements in ^{116,118,120}Cd and the Structure of Normal and Intruder States*," H. Mach, M. Moszynski, R.F. Casten, R.L. Gill, D.S. Brenner, J.A. Winger, W. Krips, C. Wesselborg, M. Büscher, F.K. Wohn, A. Aprahamian, D. Alburger, A. Gelberg, and A. Piotrowski, Phys. Rev. Lett. 63, 143 (1989).

16. "*Electromagnetic Decay of 10$^+$ States and Yrast Isomers in ^{208}Pb*," N. Roy, K.H. Maier, A. Aprahamian, J.A. Becker, D.J. Decman, E.A. Henry, L.G. Mann, R.A. Meyer, W. Stoefl, and G.L. Struble, Phys. Lett. B221, 6 (1989).

15. "*Nuclear Structure of ^{200}Pt from In-Beam Conversion Electron and γ-ray Spectroscopy*," S.W. Yates, E.M. Baum, E.A. Henry, L.G. Mann, N. Roy, A. Aprahamian, R.A. Meyer, R. Estep, Phys. Rev. C37, 1889 (1988).

14. "*0$^-$ g 0$^+$ Beta Decays of ^{96}Y and the Collectivity of the 0$^+$ State in the Doubly Closed Subshell Nucleus, ^{96}Zr*," H. Mach, G. Molnar, S.W. Yates, R.L. Gill, A. Aprahamian, and R.A. Meyer, Phys. Rev. C37, 254 (1988).

13. "*Levels of the Four Lowest Two-Particle Configurations in ^{210}Po Studied by In-Beam gamma-Ray and Conversion-Electron Spectroscopy with the ^{209}Bi (t, 2n) Reaction*," L.G. Mann, K.H. Maier, A. Aprahamian, J.A. Becker, D.J. Decman, E.A. Henry, R.A. Meyer, N. Roy, W.Stoeffl, and G. Struble, Phys. Rev. C38, 74 (1988).

12. "*First Observation of a Near Harmonic Vibrational Nucleus*," A. Aprahamian, D.S. Brenner, R.F. Casten, R.L. Gill, and A. Piotrowski, Phys. Rev. Lett. 61, 535 (1987).

11. "*g-Factor of the 6$^+_1$, State in ^{132}Te*," B. Fogelberg, C. Stone, R.L. Gill, H. Mach, D.D. Warner, A. Aprahamian, and D. Rehfield, Nucl. Phys. A451, 104 (1986).

10. "*The g-Factor of 4$^+_1$ States in the N=82 Isotones ^{136}Xe and ^{138}Ba*," Z. Berant, A. Wolf, J.C. Hill, F.K. Wohn, R.L. Gill, H. Mach, M. Rafailovich, H. Kruse, B.H. Wildenthal, G. Peaslee, A. Aprahamian, J. Golden, and C. Chung, Phys. Rev. C31, 570 (1985).

9. "*Study of the Three γ-decaying Isomers of ^{130}In*," B. Fogelberg, A. Aprahamian, R.L. Gill, H. Mach, and D. Rehfield, Phys. Rev. C31, 1026 (1985).

8. "*Observation of 0$^+$ States in ^{118}Cd and the Systematics of Intruder States*," A. Aprahamian, D.S. Brenner, R.F. Casten, R.L. Gill, A. Piotrowski, and K. Heyde, Phys. Lett. 140B, 22 (1984).

7. "*Axial Asymmetry and the Determination of Effective Gamma Values in the Interacting Boson Approximation*," R.F. Casten, A. Aprahamian, and D.D. Warner, Phys. Rev. C29 (Rapid Comm.), 356 (1984).

6. "*Empirically Determined Limits on Absolute Boson Numbers for Well Deformed Nuclei,*" R.F. Casten and A. Aprahamian, Phys. Rev. C29, 1919 (1984).

5. "*Identification and Decay of ^{124}Ag*," J.C. Hill, F.K. Wohn, Z. Berant, R.L. Gill, R.E. Chrien, C. Chung, and A. Aprahamian, Phys. Rev. C29, 1078 (1984).

4. "*Parabolic Energy Dependence of Odd-Odd Multiplets in N=83 Nuclides*," W.B. Walters, C. Chung, D.S. Brenner, A. Aprahamian, R.L. Gill, R.E. Chrien, M. Shmid, A. Wolf, L.-J. Yuan, Phys. Lett. 125B, 351 (1983).

3. "*Decay of ^{142}Ba to Levels of Odd-Odd ^{142}La*," C. Chung, W.B. Walters, D.S. Brenner, A. Aprahamian, A. Wolf, R.L. Gill, M. Shmid, R.E. Chrien, Z. Berant, and L.-J. Yuan, Phys. Rev. C28, 2099 (1983).

2. "*Role of Finite Boson Number in the Interacting Boson Approximation Description of ⍰⍰⍰Transitions in Deformed Nuclei*," R.F. Casten, D.D. Warner, and A. Aprahamian, Phys. Rev. C28, 894 (1983).

1. "*Q Values for Neutron-Rich Rubidium and Lanthanum Isotopes*," D.S. Brenner, M.D. Martel, A. Aprahamian, R.E. Chrien, R.L. Gill, H.I. Liou, M. Shmid, M.L. Stelts, A. Wolf, F.K. Wohn, D.M. Rehfield, H. Dejbakhsh, and C. Chung, Phys. Rev. C26, 2166 (1982).

Select Unrefereed Publications in Conference Proceedings

39. "*Excited states of ^{12}C above the alpha-decay threshold*", Freer, M; Almaraz-Calderon, S; Aprahamian, A; et al., Proceedings of the International EFES-IN2P3 Conference on Many-Body Correlations from Dilute to Dense Nuclear Systems (MBC), Journal of Physics Conference Series, **321**, 012036, 2011.

38. "*β-decay measurements of A $\simeq$ 70-110 r-process nuclei at the National Superconducting Cyclotron Laboratory*", Pereira, J; Aprahamian, A; Arndt, O; Beccerril, A; Elliot, T; Estrade, A; Galaviz, D; Hennrich, S; Kessler, R (Kessler, R.); Kratz, KL ; Mantica, PF; Matos, M; Montes, F; Pfeiffer, B; Quinn, M; Santi, P; ; Schertz, F; Schnorrenberger, L; Smith, E; Stolz, A ; Walters, WB; Wohr, A; International Nuclear Physics Conference 2010 (INPC2010): NUCLEAR ASTROPHYSICS, **312**, 042019, 2011.

37. "*TOF-Br Mass Measurements of Very Exotic Nuclides for Astrophysical Calculations*" M. Matos, A. Estrade, M. Amthor, A. Aprahamian, D. Bazin, A. Becerril, T. Elliot, D. Galaviz, A. Gade, S. Gupta, G. Lorusso, F. Montes, J. Pereira, M. Portillo, A. Rogers, H. Schatz, D. Shapira, E. Smith, A. Stolz, and M. Wallace, proceedings of Nuclear Physics in Astrophysics III, Dresden, Germany, March 26-31, 2007.

36. "*Spectroscopic structure of exotic ^{19}Na*", B.B. Skorodumov, G.V. Rogachev, P. Boutachkov, A. Aprahamian, J.J. Kolata, L.O. Lamm, M. Quinn, and A. Woehr, AIP Conference Proceedings **819**, 601 (2006).

35. "*Spectroscopic Structure of Exotic ^{19}Na: Astrophysics Implication*," B.B. Skorodumov, G.V. Rogachev, P. Boutachkov**, A. Aprahamian, J.J. Kolata, L.O. Lamm, M. Quinn**, and **A. Woehr**, Proceedings of 12th International Symposium on Capture Gamma-ray Spectroscopy and Related Topics, Notre Dame, Indiana, A. Woehr and A. Aprahamian, Eds., pp. 601-602 (2006).

34. "*Astrophysical r-process*," M. Quinn, A. Aprahamian, A. Woehr, P. Mantica, J. Pereira Conca, H. Schatz, S. Hennrich, and K.-L. Kratz, Proceedings of 12th International Symposium on Capture Gamma-ray Spectroscopy and Related Topics, Notre Dame, Indiana, A. Woehr and A. Aprahamian, Eds., pp. 591-592 (2006).

33. "$K=0^+$ Bands in Gadolinium Nuclei," G. Popa, A. Aprahamian, A.M. Bruce, J.G. Hirsch, and J.P. Draayer, Proceedings of 12th International Symposium on Capture Gamma-ray Spectroscopy and Related Topics, Notre Dame, Indiana, A. Woehr and A. Aprahamian, Eds., pp. 587-588 (2006).

32. "*Doppler Shift as a Tool for Studies of Resonant (p,n) Reactions with RIBs, Spectroscopy of 7He*," P. Boutachkov, G.V. Rogachev, V.Z. Goldberg, A. Aprahamian, F.D. Becchetti, J.P. Bychowski, Y. Chen, G. Chubarian, P.A. DeYoung, J.J. Kolata, L.O. Lamm, G.F. Peaslee, M. Quinn, B.B. Skorodumov, and A. Wöhr, Proceedings of 12th International Symposium on Capture Gamma-ray Spectroscopy and Related Topics, Notre Dame, Indiana, A. Woehr and A. Aprahamian, Eds., pp. 221-225 (2006).

31. "*Nuclear Isomers: Structures and Applications*," Y. Sun, M. Wiescher, A. Aprahamian, and J. Fisker, Proceedings of 12th International Symposium on Capture Gamma-ray Spectroscopy and Related Topics, Notre Dame, IN, September 4-9, 2005, pp. 196-200.

30. "*Nuclear Structure and Astrophysics*," AIP Conference Proceedings, Proceedings of the International Conference on Nuclear Physics Large and Small: Microscopic Studies of Collective Phenomena, April 19-22, Hacienda Cocoyoc (2004).

29. "*β-Decay Studies of Neutron Rich Nickel Isotopes*," P.T. Hosmer, R.R.C. Clement, A. Estrade, S.N. Liddick, P.F. Mantica, W.F. Mueller, F. Montes, A.C. Morton, M. Ouellette, E. Pellegrini, P. Santi, H. Schatz, M. Steiner, A. Stolz, B.E. Tomlin, O. Arndt, K.-L. Kratz, B. Pfeiffer, W.B. Walter, P. Reeder, A. Aprahamian, and A. Wöhr, Proceedings of r-process Workshop, Institute of Nuclear Theory, Seattle, WA, January 2004.

28. "*Mass measurement of ^{80}Y by $\beta\gamma$ coincidence spectroscopy*," D.S. Brenner, C.J. Barton, N.V. Zamfir, M.A. Caprio, A. Aprahamian, C.W. Beausang, Z. Berant, R.F. Casten, J.R. Cooper, R.L. Gill, R. Kruecken, J.R. Novak, N. Pietralla, M. Shawcross, A. Teymurazyan, A. Wolf, and M. Wiescher, Proceedings of the 11th International Conference on Capture g-Rays and Related Topics, Prague, Czech Republic, J. Kvasil, P. Cejnar, M. Krticka, Eds., World Scientific 343-349 (2003).

27. "*Microscopic study of ^{156}Gd*," G. Popa, J.G. Hirsch, J.P. Draayer, A. Aprahamian, and R.C. de Haan, Proceedings of the 11th International Conference on Capture g-Rays and Related Topics, J. Kvasil, P. Cejnar, M. Krticka, Eds., World Scientific, 797-800 (2003).

26. "*Transition matrix elements in neutron-rich fission fragments*," R. Krücken, C. Hutter, J.R. Cooper, C.J. Barton, M. Shawcross, A. Aprahamian, C.W. Beausang, M.A. Caprio, R.F. Casten, W.-T. Chou, R.M. Clark, D. Cline, M. Cromaz, A.A. Hecht, A.O. Macchiavelli, N. Pietralla, M.A. Stoyer, C.Y. Wu, N.V. Zamfir, Proceedings of the 11th International Conference on Capture g-Rays and Related Topics, Republic, J. Kvasil, P. Cejnar, M. Krticka, Eds., World Scientific, 128-134 (2003).

25. "*Spectroscopy of ^{159}Gd*", C. Granja, A. Aprahamian, H. Börner, R.E. Chrien, T. von Egidy, Y. Eisermann, G. Graw, R. Hertenberger, H. Lehmann, D. Nosek, S. Pospíšil, L. Rubáček, S.A. Telezhnikov, and H.-F. Wirth, Proceedings of the Eleventh International Symposium on Capture γ-Ray Spectroscopy and Related Topics, Prague, Czech Republic, J. Kvasil, P. Cejnar, M. Krticka, Eds., World Scientific, 672-675 (2003).

24. "*Calculations of gamma and gamma-gamma B(E2) values within the TPSM*," P. Boutachkov and A. Aprahamian, Proceedings of the International Conference on Frontiers of Nuclear Structure, UC Berkeley, CA, July 29 – August 2, 2002.

23. "*Mass Measurement of ^{80}Y by $\beta\gamma$ Coincidence Spectroscopy*," D.S. Brenner, C.J. Barton, N.V. Zamfir, M. Caprio, R.F. Casten, C.W. Beausang, R. Krücken, A. Aprahamian, R.L. Gill, Z. Berant, A. Wolf, J.R. Cooper, J.R. Novak, M. Shawcross, and A. Teymurazyan, Proceedings of the International Nuclear Structure Conference on "Mapping the Triangle", AIP 638, 223 (2002).

22. "*Calculations of γ and $\gamma\gamma$ and B(E2) transition probabilities within Triaxial Projected Shell Model*," P. Boutachkov and A. Aprahamian, Proceedings of the International Conference on Nuclear Structure, Mapping the Triangle, AIP 638, 235 (2002).

21. "*Prediction of Nuclear Masses in the A=80 region of nuclei as a function of P and F-spin*", A. Teymurazyan, A. Aprahamian, and A. Georgieva, Proceedings of the International Conference on Nuclear Structure, Mapping the Triangle, AIP 638, 271 (2002).

20. "*What is the Nature of $K=0^+$ Bands in Defined Nuclei*," A. Aprahamian, AIP, 638, 77 (2002).

19. "*The FIGARO Facility at Los Alamos: Capabilities and First Results*," R.C. Haight, M. Devlin, L. Zanini, J.M. O'Donnell, A. Aprahamian, and J.X. Saladin, Proceedings of the International Conference on Nuclear Data for Science and Technology (ND2001) "Embracing the Future at the Beginning of the 21st Century, Tsukuba, Japan, October 7-12, 2001.

18. "*Nuclear physics with fast neutrons at LANSCE/WNR: GEANIE and FIGARO*," M. Devlin, N. Fotiades, G.D. Johns. R.O. Nelson, R.C. Haight, L. Zanini, J.A. Becker, L.A. Bernstein, P.E. Garrett, C.A. McGrath, D.P. McNabb, W. Younes, J.X. Saladin, and A. Aprahamian, Applications of Accelerator Research and Industry, 16th International Conference, eds. J.L Duggan and I.L. Morgan, AIP Conference Proceedings, Vol. 576, 309 (2001).

17. "*Half-Life for the rp-Process Waiting Point Nuclide 80Zr Using Delayed Gamma Tagging*," J. Ressler, A. Piechaczek, W. Walters, A. Aprahamian, J. Batchelder, C. Bingham, D. Brenner, T. Ginter, C. Gross, R. Grzywacz, D. Kulp, B. MacDonald, W. Reviol, K. Rykaczewski, J. Stone, M. Wiescher, J. Winger, and E. Zganjar, The Nucleus: New Physics for the New Millennium, Edited by Smit et al., Kluwer Academic/Plenum Publishers, New York, p. 463 (2000).

16. "*K=0^{+} Excitations in deformed nucle*i," A. Aprahamian, The Nucleus, New Physics for the New Millennium, F.D. Smit, R. Lindsay and S.V. Förtsch, Eds., Kluwer Academic/Plenum Press (1999).

15. "*Coulomb Excitation of a ^{78}Rb Radiative Beam*," J. Schwartz, C.J. Lister, D.H. Henderson, S.M. Fischer, P. Reiter, A. Aprahamian, J.A. Cizewski, C.N. Davids, R. deHaan, R.V.F. Janssens, D. Nisius, D. Seweryniak, and S.M. Vincent, Proceedings of the International Conference "Nuclear Structure 98," Gatlinburg, TN, August 10-15, 1998.

14. "*Coulomb Excitation of a ^{78}Rb Radioactive Beam*," J. Schwartz, C.J. Lister, D.H. Henderson, S.M. Fischer, P. Reiter, A. Aprahamian, J.A. Cizewski, C.N. Davids, R. deHaan, R.V.F. Janssens, D. Nisius, D. Seweryniak, and S.M. Vincent, Proceedings of ENAM, 2nd International Conference on Exotic Nuclei and Atomic Masses, Bradley M. Sherrill, David J. Morrissey, and Cary N. Davids, eds., AIP Press, p. 589 (1998).

13. *"The rp-process in X-ray Bursts,"* M. Wiescher, A. Aprahamian, J. Dörring, J. Görres, and H. Schatz in Proceedings of the 2nd International Conference on Exotic Nuclei and ENAM, Atomic Masses, Bradley M. Sherrill, David J. Morrissey, and Cary N. Davids, eds., AIP Press, p. 819 (1998).

12. "*The Astrophysical rp-process and Nuclear Structure in the A=80 Region of Nuclides*," A. Aprahamian, in Proceedings of the 9th International Conference on Gamma-Ray Spectroscopy and Related Topics, G.L. Molnár, T. Belgya, and Zs. Révay, Eds., Springer, Budapest, Hungary, p. 535 (1997).

11. "*Predictions of masses and deformation parameters in the A=80 region of nuclei*," A. Aprahamian, in Proceedings of the International Conference on Nuclear Data for Science and Technology, Società Italiana di Fisica, Vol. 59, Part I, p. 688 (1997).

10. "*The A=80 Region of Nuclei and Radioactive Ion Beams*," A. Aprahamian, in Physics of Unstable Nuclear Beams, Carlos Bertulani, L. Felipe Canto, and Mahir S. Hussein, Eds., World Scientific, Singapore, p. 94 (1997).

9. "*Supersymmetry in the Pt-Au Region*," S.M. Fischer, A. Aprahamian, X. Wu, J.X. Saladin, and M.P. Metlay, Perspectives for the Interacting Boson Model on the Occasion of its 20th Anniversary, R.F. Casten, A. Vitturi, A.B. Balentekin, B.R. Barrett, J.N. Ginocchio, G. Maino, and T. Otsuka, Eds., World Scientific, Singapore, pp. 443-448 (1994).

8. "*Multi-Phonon Quadrupole Vibrational States in Deformed Nuclei*," A. Aprahamian, Proceedings of the Eighth International Symposium on Capture Gamma-Ray Spectroscopy, Jean Kern, Ed., World Scientific, Singapore, pp. 57-66 (1994).

7. "*Multi-Phonon Vibrations in Deformed Nuclei*," A. Aprahamian, Proceedings of the XIV Nuclear Physics Symposium, M.E. Brandan, Ed., World Scientific, Singapore (1991).

6. "*In-Beam Studies of ^{96}Zi and ^{98}Zr: Collective Excitations*," E.A. Henry, R.A. Meyer, A. Aprahamian, K.H. Maier, L.G. Mann, and N. Roy, Nuclear Structure of the Zirconium Region, Eberth, Meyer, and Sistemich, Eds., Springer Verlag, p. 233 (1988).

5. "*Nuclear Properties Along the r-Process Path*," A. Aprahamian, The Origin and Distribution of Elements, G. Mathews, Ed., World Scientific, Singapore, p. 578 (1988).

4. "*^{118}Cd: A U(5) Nucleus,"* A. Aprahamian, Nuclear Structure, Reactions, and Symmetries, R.A. Meyer and V. Paar, Eds., World Scientific, Singapore, p. 671 (1986).

3. "*Coexistence in the Neutron-Rich Cadmium Isotopes*," A. Aprahamian, Nuclei Off the Line of Stability, R.A. Meyer, D.S. Brenner, Eds., ACS Press, Washington, DC, p. 214 (1986).

2. "*Intruder States in the Cadmium Isotopes and a Simple Schematic Calculation*," A. Aprahamian, D.S. Brenner, R.F. Casten, and K. Heyde, Interacting Boson-Boson and Boson-Fermion Systems, O. Scholten, Ed., World Scientific, Singapore, p. 78 (1984).

1. "*Precision Q-Value Determinations for Neutron-Rich Rubidium Isotopes at TRISTAN*," D.S. Brenner, M.K. Martel, A. Aprahamian, R.E. Chrien, R.L. Gill, G.M. Gowdy, H.I. Liou, M. Shmid, M.L. Stelts, F.K. Wohn, C. Chung, and D.M. Rehfield, Proc. 4th Intl. Conf. on Nuclei Far From Stability, Helsingor, June 1981, P.G. Hansen and O.B. Nielsen, Eds., pp. 129-133.