



# WILLIAM & MARY

CHARTERED 1693

*Curriculum Vitae*

## PERSONAL INFORMATION

1. Name: **David S. Armstrong** Date: January 1, 2023  
Office Address: 343E Small Hall  
Phone: (757) 221-3489  
Home Address: 4937 Westmoreland Drive, Williamsburg, VA, 23188-1989  
Phone: (757) 778-2937  
E-mail: dsarms@wm.edu
2. Position: Chancellor Professor of Physics

## EDUCATION

3. Ph.D. Nuclear and Particle Physics, University of British Columbia, 1988  
M.Sc. Nuclear Physics, Queen's University, 1984  
B.Sc. Honours Physics, McGill University, 1981

## ACADEMIC POSITIONS

4. Chair, Dept. of Physics, College of William and Mary, July 2011 - June 2014  
Professor, Dept. of Physics, College of William and Mary, Sept. 2005 - present  
Associate Professor, Dept. of Physics, College of William and Mary, Sept. 1999 - Aug. 2005  
Assistant Professor, Dept. of Physics, College of William and Mary, Jan. 1994 - Aug. 1999  
Research Associate, Dept. of Physics, University of California (Berkeley), Sept. 1991 - Dec. 1993  
Sessional Lecturer, Dept. of Physics, University of British Columbia, Jan. - Mar. 1990  
Research Associate, Dept. of Physics, Virginia Polytechnic Inst. and State University, 1988 - 1991

## HONORS, PRIZES AND AWARDS

5. Arts & Sciences Faculty Award for Governance (2022)  
Monica Potkay Academic Advisor of the Year (2021-2022)  
Plumeri Award for Faculty Excellence (2020)  
Fellow of the American Physical Society (2018)  
Chancellor Professor of Physics (starting Fall 2010)  
Class of 1963 Associate Professor of Physics (2001-2004)  
Dean's Distinguished Faculty Lecture (Oct. 22 2003)  
Carl H. Westcott Graduate Fellowship (1987)

## COURSES TAUGHT

- 6. Physics 100 - ("The Quantum World") Spring '17
- Physics 101 - (General Physics - lecture) Fall '97 – Fall '00, Fall '14 – Fall '16
- Physics 102 - (General Physics - lecture) Spring '07 – Spring '09
- Physics 107 - (Physics for the Life Sciences - lecture) Fall '03 – Fall '05, Fall '13
- Physics 108 - (Physics for the Life Sciences - lecture) Spring '04 – Spring '06, Spring '10, Spring '16
- Physics 150 - (Freshman Seminar: 'Schrodinger's Cat') Spring '01, Fall '01, Fall '06, Spring '15, Spring '19, Spring '21
- Physics 175D - (Cosmology discussion section) Fall '14, Spring '15
- Physics 313 - (Quantum Mechanics I) Fall '18, Fall '19, Fall '20, Fall '21
- Physics 314 - (Quantum Mechanics II) Spring '99
- Physics 309 - (Undergraduate Seminar) Spring '00
- Physics 404 - (Quantum Mechanics III) (with W. Cooke, G. Hoatson, K. Petzinger) Spring '97  
(with M. Eckhause, G. Hoatson, K. Petzinger) Spring '98  
(with W. Cooke, K. Griffioen, G. Hoatson) Spring '02  
Spring '20, '22
- Physics 451/452/495/496 - (Senior & honors research coordination) Fall 2021/Spring 2022
- Physics 621 - (Graduate Quantum Mechanics I) Fall '07 – '09
- Physics 690 - (Nuclear and Particle Physics, reading course) Spring '21
- Physics 771 - (Graduate Nuclear/Particle Physics) Fall '94, Fall '95
- Physics 772 - (Graduate Nuclear/Particle Physics) Spring '95, '96, '98, '02
- Physics 102P - (General Physics - problem session) Spring '94 – Spring '98, '00, '01, '13, '22
- Physics 101P - (General Physics - problem session) Fall '94 – Fall '96, '01, '11, '12, '19, '22
- Physics 107P - (Physics for the Life Sciences - problem session) Fall '12
- Physics 101L/102L - (General Physics - laboratory) (with H. Funsten) Fall '96, Spring '97
- Physics 414 - (Radioactivity and Nuclear Physics - U. British Columbia) Spring '90

## FELLOWSHIPS AND GRANTS

### 7. a) External Grants awarded:

- 15. National Science Foundation "Collaborative Research: Apparatus for Normalization and Systematic Control of the MOLLER Experiment" (MidScale Equipment grant, collaborative with Virginia Tech, U. Virginia, Louisiana Tech, Ohio U., U. Massachusetts (Amherst), Idaho State U., Syracuse U., Muskingum U.). Mar. 2021 - Feb. 2024. W&M funding: \$761,074. Total project funding: \$5,682,821, PHY-2012724
- 14. National Science Foundation "*Parity-Violating Electron Scattering*", \$478,342 36 months, starting August 1 2020, PHY-2012738
- 13. Jefferson Science Associates Initiatives Fund "*Conference for Undergraduate Women in Physics at W&M and JLab*", \$6,000 Jan. 2019.
- 12. National Science Foundation "*Precision Studies of the Standard Model using Parity-Violating Electron Scattering*", \$608,000 36 months, starting August 1 2017, PHY-1714792 (with W. Deconinck).
- 11. National Science Foundation "*Precision Studies of the Standard Model using Parity-Violating Electron Scattering*", \$700,000 36 months, starting August 1 2014, PHY-1405857 (with W. Deconinck).
- 10. National Science Foundation "*Precision Tests of the Standard Model using Parity-Violating Electron Scattering*", \$520,000 36 months, starting August 1 2011, PHY-1068667.

9. National Science Foundation “*Parity-Violating Electron Scattering*”,  
\$900,000 36 months, starting August 1 2008, PHY-0758068  
(with J.M. Finn)
8. National Science Foundation “*Polarized Electron Scattering from Nucleons and Nuclei*”,  
\$320,000 12 months, starting August 1 2007, PHY-0653615  
(with J.M. Finn, T.D. Averett, R.D. Carlini, K.A. Griffioen.)
7. National Science Foundation “*Polarized Electron Scattering from Nucleons*”,  
\$1,200,000 36 months, starting August 1 2004, PHY-0400593  
(with J.M. Finn, T.D. Averett, R.D. Carlini, K.A. Griffioen.)
6. National Science Foundation “*Collaborative Research: Development of a Particle Tracking System for the Qweak Experiment.*”  
\$264,600 36 months, starting Sept. 1 2003, PHY-0320942  
(with J.M. Finn, R.D. Carlini, and T.D. Averett; lead institution of a multi-institution grant:  
incl. Ohio U., Virginia Tech, Louisiana Tech, total NSF funding + matching funds of \$975 K)
5. National Science Foundation “*Polarized Electron Scattering from Nucleons*”,  
\$952,500 36 months, starting August 1 2001.  
(with J.M. Finn, T.D. Averett, K.A. Griffioen, A. Lung)
4. National Science Foundation “*Parity Violation in Hydrogen and Deuterium and Related Spin Physics Experiments*”,  
\$645,000 Aug. 1 1998 - July 31 2001. (with J.M. Finn, R.D. Carlini, K.A. Griffioen)
3. National Science Foundation “*Parity Violation in Hydrogen and Deuterium and Related Spin Physics Experiments*”,  
\$130,000 July 15 1997 - July 30 1998. (with J.M. Finn, L.S. Cardman, R.D. Carlini,  
K.A. Griffioen, R.T. Siegel)
2. Jeffress Memorial Trust “*Nuclear Weak Interactions and Muon Molecular Physics*” (renewal),  
\$10,000 Jan. 1 1997 - Dec. 31 1997.
1. Jeffress Memorial Trust “*Nuclear Weak Interactions and Muon Molecular Physics*”,  
\$17,960 Jan. 1 1996 - Dec. 31 1996.

#### **Proposals not funded:**

1. Dept. of Energy: “*Nuclear Physics Research Traineeships at William & Mary*”  
\$229,638 24 months, submitted February 2021, (PI: C.J. Monahan, co-PIs: J.R. Stevens, D. Armstrong).
2. National Science Foundation “Mid-scale RI-1 (M1:IP) Consortium: Apparatus for Normalization and Systematic Control of the MOLLER Experiment” submitted Feb. 2019. W&M share of request: \$863,907. Total NSF request: \$9,292,516
3. National Science Foundation “MRI Collaborative: Development of The P2 Liquid Hydrogen Target” (collaborative with Mississippi State U.) submitted Jan 2019. W&M share of request: \$289,877. Total NSF request: \$1,500,197

#### **b) Internal William & Mary grants:**

5. Research Leave: September 2017 to August 2018 - Research at Jefferson Lab.
4. Research Leave: September 2010 to August 2011 - Research at Jefferson Lab.
3. Research Leave: September 2002 to August 2003 - Research at Jefferson Lab.

2. Summer Research Grant 1995, "Muon Capture studies in Nuclei" - award declined, due to summer support from CEBAF.
1. Summer Research Grant 1996, "Nuclear Muon Capture", \$5250 (reduced to \$1550 due to external funding from the Jeffress Trust).

## RESEARCH

### 8. a) Publications in Refereed Journals:

95. CREX Collaboration: D. Adhikari, H. Albataineh, D. Androic, K. Aniol, D.S. Armstrong, T. Averett, C. Ayerbe Gayoso, S.K. Barcus, V. Bellini, R.S. Beminiwattha, J. F. Benesch, H. Bhatt, D. Bhatta Pathak, D. Bhetuwal, B. Blaikie, Q. Campagna, A. Camsonne, G.D. Cates, Y. Chen, C. Clarke, J.C. Cornejo, S. Covrig Dusa, M.M. Dalston, P. Datta, A. Deshpande, D. Dutta, C. Feldman, E. Fuchey, C. Gal, D. Gaskell, T. Gautam, M. Gericke, C. Ghosh, I. Halilovic, J.-O. Hansen, O. Hassan, F. Hauenstein, W. Henry, C.J. Horowitz, C. Jantzi, S. Jian, S. Johnston, D.C. Jones, S. Kakkar, S. Katugampola, C. Keppel, P.M. King, D.E. King, K.S. Kumar, T. Kutz, N. Lashley-Colthirst, G. Leverick, H. Liu, N. Liyange, J. Mammei, R. Mammei, M. McCaughan, D. McNulty, D. Meekins, C. Metts, R. Michaels, M.M. Mondal, J. Napolitano, A. Narayan, D. Nikolaev, V. Owen, C. Palatchi, J. Pan, B. Pandey, S. Park, K.D. Paschke , M. Petrusky, M.L. Pitt, S. Premathilake, B. Quinn, R. Radloff, S. Rahman, M.N.H. Rashad, A. Rathnayake, B.T. Reed, P.E. Reimer, R. Richards, S. Riordan, Y.R. Roblin, S. Seeds, A. Shahinyan, P. Souder, M. Thiel, Y. Tian, G.M. Urciuoli, E.W. Wertz, B. Wojtsekhowski, B. Yale, T. Ye, A. Yoon, W. Xiong, A. Zec, W. Zhang, J. Zhang, X. Zheng, "Precision Determination of the Neutral Weak Form Factor of  $^{48}Ca$ ", Phys. Rev. Lett. **129** (2022)042501.
94. PREX, CREX Collaborations: D. Adhikari, H. Albataineh, D. Androic, K. Aniol, D.S. Armstrong, T. Averett, C. Ayerbe Gayoso, S. Barcus, V. Bellini, R.S. Beminiwattha, J. F. Benesch, H. Bhatt, D. Bhatta Pathak, D. Bhetuwal, B. Blaikie, Q. Campagna, A. Camsonne, G. D. Cates, Y. Chen, C. Clarke, J.C. Cornejo, S. Covrig Dusa, P. Datta, A. Deshpande, , D. Dutta, C. Feldman, E. Fuchey, C. Gal, D. Gaskell, T. Gautam, M. Gericke, C. Ghosh, , I. Halilovic, J.-O. Hansen, F. Hauenstein, W. Henry, C.J. Horowitz, C. Jantzi, S. Jian, S. Johnston, D. C. Jones, B. Karki, S. Katugampola, C. Keppel, P.M. King, D. E. King, M. Knauss, K. S. Kumar, T. Kutz, N. Lashley-Colthirst, G. Leverick, H. Liu, N. Liyange, S. Malace, R. Mammei, J. Mammei, M. McCaughan, D. McNulty, D. Meekins, C. Metts, R. Michaels, M. M. Mondal, , J. Napolitano, A. Narayan, D. Nikolaev, M.N.H. Rashad, V. Owen, C. Palatchi, J. Pan, B. Pandey, S. Park, K.D. Paschke , M. Petrusky, M.L. Pitt, S. Premathilake, A.J.R. Puckett, B. Quinn, R. Radloff, S. Rahman, A. Rathnayake, B.T. Reed, P.E. Reimer, R. Richards, S. Riordan, Y. Roblin, S. Seeds, A. Shahinyan, P. Souder, L. Tang, , M. Thiel, Y. Tian, G.M. Urciuoli, E.W. Wertz, B. Wojtsekhowski, B. Yale, T. Ye, A. Yoon, A. Zec, W. Zhang, J. Zhang, X. Zheng, "New Measurements of the Beam-Normal Single Spin Asymmetry in Elastic Electron Scattering Over a Range of Spin-0 Nuclei", Phys. Rev. Lett. **128** (2022)142501.
93. Qweak Collaboration: D. Androic *et al.* [full author list: see Paper 85], "Determination of the  $^{27}Al$  Neutron Distribution Radius from a Parity-Violating Electron Scattering Measurement", Phys. Rev. Lett. **128** (2022)132501.
92. Qweak Collaboration: D. Androic *et al.* [full author list: see Paper 85], "Measurement of the Beam-Normal Single-Spin Asymmetry for Elastic Electron Scattering from  $^{12}C$  and  $^{27}Al$ " Phys. Rev. C **104** (2021)014606.

91. Jefferson Lab E97-110 Collaboration: V. Sulkosky *et al.* [full author list: see Paper 88],  
*“Measurement of the generalized spin polarizabilities of the neutron in the low  $Q^2$  region”*  
Nature Physics **17** (2021)687.
90. PREX Collaboration: D. Adhikari, H. Albataineh, D. Androic, K. Aniol, D.S. Armstrong, T. Averett, C. Ayerbe Gayoso, S. Barcus, V. Bellini, R.S. Beminiwattha, J. F. Benesch, H. Bhatt, D. Bhatta Pathak, D. Bhetuwal, B. Blaikie, Q. Campagna, A. Camsonne, G. D. Cates, Y. Chen, C. Clarke, J.C. Cornejo, S. Covrig Dusa, P. Datta, A. Deshpande, , D. Dutta, C. Feldman, E. Fuchey, C. Gal, D. Gaskell, T. Gautam, M. Gericke, C. Ghosh, , I. Halilovic, J.-O. Hansen, F. Hauenstein, W. Henry, C.J. Horowitz, C. Jantzi, S. Jian, S. Johnston, D. C. Jones, B. Karki, S. Katugampola, C. Keppel, P.M. King, D. E. King, M. Knauss, K. S. Kumar, T. Kutz, N. Lashley-Colthirst, G. Leverick, H. Liu, N. Liyange, S. Malace, R. Mammei, J. Mammei, M. McCaughan, D. McNulty, D. Meekins, C. Metts, R. Michaels, M. M. Mondal, , J. Napolitano, A. Narayan, D. Nikolaev, M.N.H. Rashad, V. Owen, C. Palatchi, J. Pan, B. Pandey, S. Park, K.D. Paschke , M. Petrusky, M.L. Pitt, S. Premathilake, A.J.R. Puckett, B. Quinn, R. Radloff, S. Rahman, A. Rathnayake, B.T. Reed, P.E. Reimer, R. Richards, S. Riordan, Y. Roblin, S. Seeds, A. Shahinyan, P. Souder, L. Tang, , M. Thiel, Y. Tian, G.M. Urciuoli, E.W. Wertz, B. Wojtsekowski, B. Yale, T. Ye, A. Yoon, A. Zec, W. Zhang, J. Zhang, X. Zheng,  
*“An Accurate Determination of the Neutron Skin Thickness of  $^{208}\text{Pb}$  through Parity-Violation in Electron Scattering”*  
Phys. Rev. Lett. **126** (2021)172502.
89. Qweak Collaboration: D. Androić *et al.* [full author list: see Paper 85],  
*“Precision Measurement of the Beam-Normal Single-Spin Asymmetry in Forward-Angle Elastic Electron-Proton Scattering”*  
Phys. Rev. Lett. **125** (2020)112502.
88. Jefferson Lab E97-110 Collaboration: V. Sulkosky, J.T. Singh, C. Peng, J.-P. Chen, A. Deur, S. Abrahamyan, K.A. Aniol, D.S. Armstrong, T. Averett, S.L. Bailey, A. Beck, P. Bertin, F. Butaru, W. Boeglin, A. Camsonne, G.D. Cates, C.C. Chang, Seonho Choi, E. Chudakov, L. Coman, J.C. Cornejo, B. Craver, F. Cusanno, R. De Leo, C.W. de Jager, J.D. Denton, S. Dhamija, R. Feuerbach, J.M. Finn, S. Frullani, K. Fuoti, H. Gao, F. Garibaldi, O. Gayou, R. Gilman, A. Glamazdin, C. Glashauser, J. Gomez, J.-O. Hansen, D. Hayes, B. Hersman, D.W. Higinbotham, T. Holmstrom, T.B. Humensky, C.E. Hyde, H. Ibrahim, M. Iodice, X. Jiang, L.J. Kaufman, A. Kelleher, K.E. Keister, W. Kim, A. Kolarkar, N. Kolb, W. Korsch, K. Kramer, G. Kumbartzki, L. Lagamba, V. Lain, G. Laveissiere, J.J. Leroose, D. Lhuillier, R. Lindgren, N. Liyanage, H.-J. Lu, B. Ma, D.J. Margaziotis, P. Markowitz, K. McCormick, M. Meziane, Z.-E. Meziani, R. Michaels, B. Moffit, P. Monaghan, S. Nanda, J. Niedziela, M. Niskin, R. Pandolfi, K.D. Paschke, M. Potokar, A.J.R. Puckett, V.A. Punjabia, Y. Qiang, R. Ransome, B. Reitz, R. Rocha, A. Saha, A. Shabetai, S. irca, K. Slifer, R. Snyder, P. Solvignon, R. Stringer, R. Subedi, W.A. Tobias, N. Ton, P.E. Ulmer, G.M. Urciuoli, A. Vacheret, E. Voutier, K. Wang, L. Wan, B. Wojtsekowski, S. Woo, H. Yao, J. Yuan, X. Zhang, X. Zheng, L. Zhu,  
*“Measurement of the  $^3\text{He}$  Spin-Structure Functions and of Neutron ( $^3\text{He}$ ) Spin-Dependent Sum Rules at  $0.035 < Q^2 < 0.24 \text{ GeV}^2$ ”*  
Phys. Lett. B **805** (2020)135428.
87. Qweak Collaboration: D. Androić *et al.* [full author list: see Paper 85],  
*“Parity-Violating Inelastic Electron-Proton Scattering at Low  $Q^2$  Above the Resonance Region”*  
Phys. Rev. C **101** (2020)055503.
86. P2 Collaboration: Dominik Becker, Razvan Bucoveanu, Carsten Grzesik, Ruth Kempf, Kathrin Imai, Matthias Molitor, Alexey Tyukin, Marco Zimmermann, David Armstrong, Kurt Aulenbacher, Sebastian Baunack, Rakitha Beminiwattha, Niklaus Berger, Peter Bernhard, Andrea Brogna, Luigi Capozza, Silviu Covrig Dusa, Wouter Deconinck, Jurgen Diefenbach, Jens Erler, Ciprian Gal, Boris

Glaser, Boxing Gou, Wolfgang Gradl, Michael Gericke, Mikhail Gorchtein, Yoshio Imai, Krishna S. Kumar, Frank Maas, Juliette Mammei, Jie Pan, Preeti Pandey, Kent Paschke, Ivan Peric, Mark Pitt, Sakib Rahman, Seamus Riordan, David Rodrguez Pineiro, Concettina Sfienti, Iurii Sorokin, Paul Souder, Hubert Spiesberger, Michaela Thiel, Valery Tyukin, and Quirin Weitzel,

*"The P2 Experiment: A future high-precision measurement of the electroweak mixing angle at low momentum transfer"*

Eur. Phys. J. A **54**(2018)208.

85. Qweak Collaboration: D. Androić, D. S. Armstrong, A. Asaturyan, T. Averett, J. Balewski, K. Bartlett, J. Beaufait, R. S. Beminiwattha, J. Benesch, F. Benmokhtar, J. Birchall, R. D. Carlini, J. C. Cornejo, S. Covrig Dusa, M. M. Dalton, C. A. Davis, W. Deconinck, J. Diefenbach, J. F. Dowd, J. A. Dunne, D. Dutta, W. S. Duvall, M. Elaasar, W. R. Falk, J. M. Finn, T. Forest, C. Gal, D. Gaskell, M. T. W. Gericke, J. Grames, V. M. Gray, K. Grimm, F. Guo, J. R. Hoskins, D. Jones, M. Jones, R. Jones, M. Kargiantoulakis, P. M. King, E. Korkmaz, S. Kowalski, J. Leacock, J. Leckey, A. R. Lee, J. H. Lee, L. Lee, S. MacEwan, D. Mack, J. A. Magee, R. Mahurin, J. Mammei, J. W. Martin, M. J. McHugh, D. Meekins, J. Mei, K.E. Mesick, R. Michaels, A. Micherdzinska, A. Mkrtchyan, H. Mkrtchyan, N. Morgan, A. Narayan, L. Z. Ndakum, V. Nelyubin, Nuruzzaman, W.T.H van Oers, A. K. Opper, S. A. Page, J. Pan, K. D. Paschke, S. K. Phillips, M. L. Pitt, M. Poelker, J. F. Rajotte, W. D. Ramsay, J. Roche, B. Sawatzky, T. Seva, M. H. Shabestari, R. Silwal, N. Simicevic, G. R. Smith, P. Solvignon, D. T. Spayde, A. Subedi, R. Subedi, R. Suleiman, V. Tadevosyan, W. A. Tobias, V. Tvaskis, B. Waidyawansa, P. Wang, S. P. Wells, S. A. Wood, S. Yang, R. D. Young, P. Zang, S. Zhamkochyan,  
*"Precision Measurement of the Weak Charge of the Proton"*  
Nature **557** (2018)207.
84. K. Chirapatpimol, M.H. Shabestari, R.A. Lindgren, L.C. Smith, J.R.M. Annand, D.W. Higinbotham, B. Moffit, V. Nelyubin, B.E. Norum, K. Allada, K. Aniol, K. Ardashev, D.S. Armstrong, R.A. Arndt, F. Benmokhtar, A.M. Bernstein, W. Bertozzi, W.J. Briscoe, L. Bimbot, A. Camsonne, J.-P. Chen, S. Choi, E. Chudakov, E. Cisbani, F. Cusanno, M.M. Dalton, C. Dutta, K. Egiyan, C. Fernandez-Ramirez, R. Feuerbach, K.G. Fissum, S. Frullani, F. Garibaldi, O. Gayou, R. Gilman, S. Gilad, J. Goity, J. Gomez, B. Hahn, D. Hamilton, J.-O. Hansen, J. Huang, R. Igarashi, D. Ireland, C.W. de Jager, X. Jin, X. Jiang, T. Jinasundera, J. Kellie, C.E. Keppel, N. Kolb, J. LeRose, N. Liyanage, K. Livingston, D. McNulty, L. Mercado, R. Michaels, M. Mihovilovic, S. Qian, X. Qian, S. Mailyan, V. Mamyan, S. Marrone, P. Monaghan, S. Nanda, C.F. Perdrisat, E. Piasetzky, D. Protopopescu, V. Punjabi, Y. Qiang, I.A. Rachek, A. Rakhman, G. Ron, G. Rosner, A. Saha, B. Sawatzky, A. Shahinyan, S. Sirca, N. Sparveris, R.R. Subedi, R. Suleiman, I. Strakovsky, V. Sulkosky, J. Moinelo, H. Voskanyan, K. Wang, Y. Wang, J. Watson, D. Watts, B. Wojtsekhowski, R.L. Workman, H. Yao, X. Zhan, Y. Zhang,  
*"A precision measurement of the  $p(e, e'p)\pi^0$  reaction at threshold"*  
Phys. Rev. Lett. **114** (2015)192503.
83. Hall A Collaboration: D. Wang, *et al.*, [full author list: see Paper 79],  
*"Measurement of Parity-Violating Asymmetry in Electron-Deuteron Inelastic Scattering "*  
Phys. Rev. C **91** (2015)045506.
82. Qweak collaboration: T. Allison, M. Anderson, D. Androić, D.S. Armstrong, A. Asaturyan, T.D. Averett, R. Averill, J. Balewski, J. Beaufait, R.S. Beminiwattha, J. Benesch, F. Benmokhtar, J. Bessuelle, J. Birchall, E. Bonnell, J. Bowman, P. Brindza, D.B. Brown, R.D. Carlini, G.D. Cates, B. Cavness, G. Clark, J.C. Cornejo, S. Covrig Dusa, M.M. Dalton, C.A. Davis, D.C. Dean, W. Deconinck, J. Diefenbach, K. Dow, J.F. Dowd, J.A. Dunne, D. Dutta, W.S. Duvall, J.R. Echols, M. Elaasar, W.R. Falk, K.D. Finelli, J.M. Finn, D. Gaskell, M.T.W. Gericke, J. Grames, V.M. Gray, K. Grimm, F. Guo, J. Hansknecht, D.J. Harrison, E. Henderson, J.R. Hoskins, E. Ihloff, K. Johnston, D. Jones, M. Jones, R. Jones, M. Kargiantoulakis, J. Kelsey, N. Khan, P.M. King, E. Korkmaz, S. Kowalski,

- A. Kubera, J. Leacock, J.P. Leckey, A.R. Lee, J.H. Lee, L. Lee, Y. Liang, S. MacEwan, D. Mack, J.A. Magee, R. Mahurin, J. Mammei, J.W. Martin, A. McCreary, M.H. McDonald, M.J. McHugh, P. Medeiros, D. Meekins, J. Mei, R. Michaels, A. Micherdzinska, A. Mkrtchyan, H. Mkrtchyan, N. Morgan, J. Musson, K.E. Mesick, A. Narayan, L.Z. Ndakum, V. Nelyubin, Nuruzzaman, W.T.H. van Oers, A.K. Opper, S.A. Page, J. Pan, K.D. Paschke, S.K. Phillips, M.L. Pitt, M. Poelker, J.F. Rajotte, W.D. Ramsay, W.R. Roberts, J. Roche, P.W. Rose, B. Sawatzky, T. Seva, M.H. Shabestari, R. Silwal, N. Simicevic, G.R. Smith, S. Sobczynski, P. Solvignon, D.T. Spayde, B. Stokes, D.W. Storey, A. Subedi, R. Subedi, R. Suleiman, V. Tadevosyan, W.A. Tobias, V. Tvaskis, E. Urban, B. Waidyawansa, P. Wang, S.P. Wells, S.A. Wood, S. Yang, S. Zhamkochyan, R.B. Zielinski,  
*“The Q<sub>weak</sub> Experimental Apparatus”*  
*Nucl. Instruments and Methods A* **781** (2015)105.
81. Hall A Collaboration: D. Wang, *et al.*, [full author list: see Paper 79],  
*“Measurement of Parity Violation in Electron-Quark Scattering”*  
*Nature* **506** (2014)67.
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25. D.S. Armstrong, "Parity-Violating and Parity-Conserving Asymmetries in Electron Scattering from  $^{27}Al$ ",  
APS Meeting, Denver CO, April 2019, Paper Y13.00002
24. D.S. Armstrong, "The Weak Charge of the Proton",  
APS Meeting, Anaheim CA, May 2011, Bull. Am. Phys. Soc. **56**, No 4 (2010) Paper H10.00003

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22. D.S. Armstrong, (for the TRIUMF E766 collaboration) “*Ortho-Para Transition in Muonic Hydrogen and the Proton’s Induced Pseudoscalar Coupling*”, APS April Meeting, Denver CO, May 2004, Bull. Am. Phys. Soc. **49**, No 2 (2004)86, Paper J15 3
21. D.S. Armstrong “*HAPPEX parity violation experiments: status and plans*”, “Low-q”: Workshop on Electromagnetic Nuclear Reactions at Low Momentum Transfer, Halifax, N.S., Canada, Aug. 23-25, 2001
20. J.H.D. Clark, D.S. Armstrong, P.M. King, T.P. Gorringe, P.A. Zolnierczuk, S. Tripathi, M.D. Hasinoff, T. Stocki, D.H. Wright, “*Ortho-Para Transition in Muonic Molecular Hydrogen*”, APS Nucl. Phys. Div., Williamsburg, VA, Oct. 2000, Bull. Am. Phys. Soc. **45**(2000), Paper DE.002
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10. P. Weber, D.S. Armstrong, D.F. Measday, S. Stanislaus, D. Vetterli, M. Harston, and K.A. Aniol, “*Pion Transfer Reaction  $\pi^- p + Z \rightarrow \pi^- Z + p$* ”, APS Nucl. Phys. Div. Meeting, Asilomar, Oct. 1989, Bull. Am. Phys. Soc. **34**(1989)1828, Paper DE4.

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6. D.S. Armstrong, R.A. Burnham, T. Gorringe, M. Hasinoff, A.J. Larabee, C. Waltham, S. Ahmad, G. Azuelos, J.A. Macdonald, T. Numao, J-M. Poutissou, J. Summhammer, M. Blecher, D. Wright, E.T.H. Clifford, P. Depommier, R. Poutissou, H. Mes, and B.C. Robertson, "Radiative Muon Capture with the TRIUMF TPC", APS Spring meeting, Baltimore, April 1988, Bull. Am. Phys. Soc. **33**(1988)902, Paper AI7.
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2. D. Armstrong, R.A. Burnham, T. Gorringe, M. Hasinoff, C. Waltham, S. Ahmad, G. Azuelos, J. A. Macdonald, T. Numao, J-M. Poutissou, J. Summhammer, M. Blecher, D. Wright, E.T.H. Clifford, P. Depommier, R. Poutissou, H. Mes, and B.C. Robertson, "Radiative Muon Capture with the TRIUMF TPC", CAP Congress, Edmonton, June 1986, Physics in Canada **42**, No. 3, Paper PM1.
1. D. Armstrong, S.K. Saha, E. Adamides, S-S. Wang, C-Y. Cheng, A. Henriksen, M.A. Lone, and B.C. Robertson, "Strength Function Measurement from the  $^{197}Au(p,\gamma)$  Reaction at  $E_p = 4.0$  MeV", CAP Congress, Sherbrooke, June 1984, Physics in Canada **40**, No. 3, Paper PP16.

e) Invited Talks:

51. QNP 2022 - 9th Int. Conf. on Quarks and Nuclear Physics, Online, Sept 5-9 2022  
"Parity-violating electron scattering measurements at Jefferson Lab"
50. Canadian Association of Physicists (CAP) Annual Congress Hamilton, Ontario, Canada June 5-10 2022.  
"The MOLLER Experiment"
49. Parity Violation and Related Topics, Mainz Institute for Theoretical Physics, Mainz, Germany, March July 27-30 2020.  
"Beam-Normal Single-Spin Asymmetry results from QWeak"
48. Weak Elastic Scattering with Nuclei, Institute for Nuclear Theory (INT) workshop, Seattle WA, March 4-8 2019.  
"QWeak: the proton's weak charge & the neutron skin in  $^{27}Al$ "

47. Colloquium PRISMA, Johannes Gutenberg-Universität Mainz, Germany, Apr. 25 2018.  
*"The Proton's Weak Charge"*
46. PVES2108 Workshop, Mainz Institute for Theoretical Physics, Mainz, Germany, Apr. 24 2018.  
*"Final results from the QWeak experiment"*
45. Argonne National Lab, Physics Division Seminar, Dec. 4 2017.  
*"Precision Measurement of the Proton's Weak Charge"*
44. MIT, LNS, Nuclear and Particle Physics Colloquium, Nov. 20 2017.  
*"Precision Measurement of the Proton's Weak Charge"*
43. Southeastern Section of APS (SESAPS), Milledgeville, GA, Nov. 16-18 2017.  
*"Precision Measurement of the Proton's Weak Charge"*
42. 12th International Conf. on Electromagnetic Interactions with Nucleons and Nuclei (EINN 2017), Paphos, Cyprus, Oct 31 - Nov 3, 2017.  
*"New Measurement of the Proton's Weak Charge"*
41. Symmetry Tests in Nuclei and Atoms, Kavli Institute for Theoretical Physics, UC Santa Barbara, CA, Sept 19-23, 2016  
*"Searches for BSM physics with parity-violating electron scattering"*
40. Physics Beyond the Standard Model and Precision Nucleon Structure Measurements with Parity-Violating Electron Scattering, ECT\*, Trento, Italy, August 1 2016  
*"Experiences from Qweak"*
39. PAVI'14 (6th Int. Workshop: From Parity Violation to Hadronic Structure), Skaneateles, NY, July 18 2014.  
*"Workshop Summary"*
38. Physics Colloquium, University of Kentucky, March 7 2014  
*"The Weak Charge of the Proton"*
37. MENU 2013 (13th Int. Conf. on Meson-Nucleon Physics and the Structure of the Nucleon), Sept. 30-Oct. 4 2013, Rome, Italy  
*"Review of Parity-Violating Electron Scattering at Jefferson Lab"*
36. Canadian Association of Physicists Annual Congress, June 11-15 2012, Calgary, Alberta, Canada  
*"Strangeness in the Nucleon"*
35. 4th Workshop of Group on Hadronic Physics of APS, Anaheim CA, April 27 2011  
*"Electroweak Probe of Strangeness in the Nucleon"*
34. Physics Colloquium, George Mason University, Feb 4 2011  
*"Strangeness in the Proportion: Probing the Proton with Parity Violation"*
33. Workshop on Precision Tests of the Standard Model: from Atomic Parity Violation to Parity-Violating Electron Scattering, ECT\*, Trento, Italy, Nov 9 2010  
*"The Moller Experiment"*
32. Seminar, Center for Nuclear Studies, George Washington U. Oct. 19, 2010  
*"Strangeness in the Proportion: Nucleon Structure Probed using Parity Violation"*
31. APS/DNP meeting, Oct. 13-17 2009, Hawaii Island, Hawaii  
*"Strangeness in the Proportion: strangeness in the nucleon probed via parity-violating electron scattering" 2WF-3*
30. Physics seminar, Oct. 10 2009 Laboratoire de Physique Subatomique et de Cosmologie, Grenoble, France  
*"Probing the Standard Model with Parity-Violating Electron Scattering "*

29. 4th International Workshop: From Parity Violation to Hadronic Structure and more... (PAVI'09), June 22-26 2009, Bar Harbor, ME  
*"Parity-Violating Electron Scattering on Hydrogen and Deuterium at Backward Angles: G0 Experiment"*
28. Jefferson Lab Users Group Annual Meeting, June 8-10 2009, Newport News, VA  
*"The 12 GeV Parity Violation Program"*
27. APS April Meeting, May 2-5 2009, Denver, CO  
*"Testing Fundamental Symmetries with Parity-Violating Electron Scattering"*
26. Physics seminar, James Madison University, March 13 2008  
*"Physics in the Mirror World: Using Parity Violation to Study Quarks in the Proton"*
25. MENU 2007: 11th International Conf. on Meson-Nucleon Physics, Jülich, Germany, Sept. 10-14 2007  
*"Strangeness Content of the Nucleon via Parity-Violating Asymmetries in Polarized Electron Scattering"*.
24. 2nd Meeting of the APS Topical Group on Hadronic Physics, Nashville TN, Oct 22-24 2006,  
*"Strange Form Factors of the Nucleon"*
23. Gordon Research Conference on Photonuclear Physics, Tilton N.H., July 30-August 4 2006  
*"Latest Results from the HAPPEX experiment in Hall A"*
22. 3rd International Workshop: From Parity Violation to Hadronic Structure and more... (PAVI'06) Milos Island, Greece, May 16-20 2006.  
*"New results from the HAPPEX experiments at  $Q^2 = 0.1 \text{ GeV}^2$ "*  
Eur. Phys. J. A **32**, 451-455 (2007).
21. Workshop on the Intersections of Nuclear Physics with Neutrinos and Electrons, Jefferson Lab, May 4-5 2006,  
*"Parity-Violating Electron Scattering"*.
20. Physics Seminar, U. Virginia, Oct. 4 2005.  
*"Parity-Violating Electron Scattering and Strange Quarks"*
19. Joint Jefferson Lab/Institute for Nuclear Theory Workshop on Precision Electroweak Interactions, Williamsburg, VA August 15-17 2005.  
*"Results from HAPPEX"*.
18. Gordon Research Conference on Photonuclear Physics, Tilton N.H., August 1-6 2004  
*"First Results from the G0 Experiment"*
17. Jefferson Lab Hall C User's workshop, Sept 11 2003  
*"Parity Violation Experiments in Hall C"*
16. 18th Winter Workshop on Nuclear Dynamics, Nassau, Bahamas, Jan. 20-27 2002  
Proc. edited by R. Bellwied, J. Harris, W Bauer, EP Systema Bt, Debrecen (2002) pg. 165-174.  
*"Strange Quark Content of the Nucleon"*
15. SESAPS meeting, Miami FL, Nov. 13-15 1998, Bull. Am. Phys. Soc. **43**(1998)1608 (abstract BA 4).  
*"Parity Violation in Electron-Proton Scattering and Strangeness in the Nucleon"*
14. Joint APS/AAPT meeting, Columbus OH, Apr. 20 1998, Bull. Am. Phys. Soc. **43**(1998)1160 (abstract M10 2).  
*"Radiative Muon Capture on the Proton and Muonic Molecular Effects"*
13. Physics seminar, U. Richmond, Oct. 23 1997
12. Nuclear/Particle physics seminar, U. Kentucky, Mar. 9 1995
11. Physics colloquium, Virginia Tech., Nov. 3 1994

10. Physics seminar, Physics Division, Lawrence Berkeley Lab., Sept. 23 1993
9. Physics seminar, U. Illinois (Champaign-Urbana), Apr. 23 1993
8. Physics seminar, Nuclear Science Division, Lawrence Berkeley Lab., Jan. 25 1993
7. Physics colloquium, U. British Columbia, May 1 1991
6. Western Regional Nucl. and Part. Phys. Conf. of Canadian Association of Physicists, Lake Louise, Alberta, Feb. 16 1991
5. International Workshop on Exotic Atoms and Condensed Matter, May 1990, Erice, Italy  
*“Capture and Transfer of Pions in Hydrogenous Materials”* Springer Verlag Proc. in Phys. **59**, ed. H. Schneuwly and G. Benedek, (1992)175-188.
4. Physics colloquium, Queen’s U., Nov. 4 1990
3. Physics colloquium, U. Victoria, Nov. 25 1989
2. Physics seminar, TRIUMF, April 6 1989
1. Physics colloquium, Virginia Tech., April 5 1988

**g) Book Reviews:**

1. Review of “Algebraic Approaches to Nuclear Structure, Interacting Boson and Fermion Models” ed. R.F. Casten, in Physics in Canada **51**, no. 4 (July-Sept 1995).

**j) Other non-refereed publications:**

1. David Armstrong and Kandice Carter, “*Investigating the proton’s strange sea*”, CERN Courier **45**, 28 (2005); also reprinted in Bulletin of the Association of Asia Pacific Physical Societies **16**, 40 (2006).

**n) Papers submitted for publication in refereed journals:**

1. G0 Collaboration: D. Androić *et al.* [full author list: see Paper 69], “*First Measurement of the Neutral Current Excitation of the  $\Delta$  Resonance on a Proton Target*” submitted to Physics Letters B, December 2012. arXiv:1212.1637

## **PROFESSIONAL SERVICE**

**8. a) College Committee Service:**

**i) Arts and Sciences & University-wide**

- Faculty Representative on Board of Visitors, Fall 2022 - Summer 2023
- Non Tenure-Eligible Faculty Framework Working Group (A&S) Spring 2022
- Faculty Assembly, Fall 2018 - July 2021  
 President, July 2020 - July 2021  
 Vice President, July 2019 - June 2020  
 Committee on Planning and Resources, Fall 2018 - July 2021  
 Faculty Affairs committee, Fall 2018 - Spring 2019
- Faculty Affairs Committee, Arts and Sciences, Fall 2018 - July 2021; Chair Fall 2019 - Spring 2020
- Search committee for Chief Operating Officer - Fall 2022 - Spring 2023

- Search committee for Associate Provost for Faculty Affairs & Development - Fall 2021 - Spring 2022
- Duke Award selection committee, Spring 2021
- External Review Committee for Applied Science Dept., Fall 2020
- COVID Response Team, Spring 2020 - Fall 2020
- Mission-Critical Exception Review Team, Spring 2020 - Fall 2020
- Strategic Planning Steering Committee, Fall 2019 - Spring 2020
- Review for W&M Study Abroad Program in Galway, Ireland, July 8-10 2019
- Arts & Sciences Diversity, Equity & Inclusion Task Force - Spring 2019
- Faculty Representative to W&M Board of Visitors Committee on Institutional Advancement, Fall 2018 - present
- Noyce Scholarship Program Steering Committee August 2016 - present
- Committee on Graduate Studies, August 2014 - May 2017
- Quality Enhancement Plan (QEP) committee for SACS/COC review, August-December 2015
- Review Committee for Dean Conley, Fall 2014 - Spring 2015
- Chair, Review Committee for Vice Provost Slevin, Spring 2013
- Council of Chairs and Program Directors, Fall 2011 - Spring 2014
- Retention, Promotion and Tenure committee, Fall 2007 - Spring 2010  
chair, Fall 2008 - Spring 2010
- W&M Web Advisory Committee, Fall 2008 - Spring 2009
- Participant in the 2009 'Raft Debate'
- Faculty Affairs Committee (Arts and Sciences), Fall 2004 - Spring 2007
- Faculty Assembly, Fall 2004 - Spring 2007  
Academic Affairs committee, Fall 2004 - Spring 2006  
Faculty Affairs committee, Fall 2004 - Spring 2007; chair Fall 2006 - Spring 2007  
Executive committee, Fall 2006 - Spring 2007
- Review committee for Vice Provost Manos, Fall 2006
- Search committee for Arts and Sciences Planning Analyst, Fall 2006
- Judicial Council, Fall 2005 - Spring 2006
- Student Fee Professorship Selection Committee, Fall 2004, Spring 2007
- *Ad hoc* Whitepaper Committee on Laptop Initiative, Spring 2003
- SACS (Southern Association of Colleges and Schools) Advisory Committee, Spring 2003 - Spring 2006
- SACS QEP (Quality Enhancement Plan) Committee, Fall 2005 - Fall 2006
- Committee on Honorary Degrees, Fall 2003
- Faculty Assembly, Fall 1999 - Spring 2002;  
Academic Affairs Committee, Fall 1999 - Spring 2002  
Faculty Affairs Committee, Fall 2000 - Spring 2001  
*Ad hoc* subcommittee on Consensual Amorous Relations Policy, Fall 2000 - Spring 2001  
Committee on Planning and Resources, Fall 2001 - Spring 2002

- *Ad hoc* Committee on Digital Information Literacy (Pilot Project) Summer & Fall 2001
- Information Technology Advisory Committee, Fall 1998 - Spring 2000; Fall 2003 - Spring 2004
- Selection Committee, Thomas Jefferson Prize in Natural Philosophy, Fall 2000
- GER 3 Assessment Committee, 1998 - 1999
- *Ad hoc* Arts & Sciences Committee on Teaching Assistants, Fall 1996
- Board of Student Affairs, Spring 1995
- *Ad hoc* committee that created the first WWW site for the College, 1995
- Student Financial Aid Committee, Fall 1994

ii) **Departmental**

- Chair, Personnel Committee, Fall 2018 - Spring 2022, member Fall 2022
- External Relations Committee, Fall 2022
- Search Committee for Physics Fiscal Administrator, Summer 2022
- Promotion committee for Prof. Enrico Rossi, Fall 2021
- Interim Review committee for Prof. Christopher Monahan, Fall 2021
- Faculty Search Committee (Nuclear/Hadronic Experiment), Fall 2019-Spring 2020
- Faculty Search Committee (Nuclear/Hadronic Theory), Fall 2018-Spring 2019
- Review Committee for Hani Dulli, Spring 2018
- Chair, Search Committee for Director of Teaching Labs, Spring 2017
- Promotion committee for Prof. Kostas Orginos, 2016
- Faculty Search committee (Nuclear/Hadronic Theory), Fall 2015-Spring 2016
- Faculty Awards Committee, September 2015 - Spring 2017
- Director of Graduate Studies, August 2014 - Spring 2017
- Department Chair, July 2011 - June 2014
- Graduate Admissions Committee, August 2014 - Spring 2017
- Facilities Committee, Fall 1994 - Spring 2002; Fall 2003 - Spring 2010;  
chair, Fall 1999 - Spring 2002; Fall 2003 - Spring 2010
- Chair, Faculty search committee (Nuclear Experiment), Fall 2009 - Spring 2010
- Deputy Building Safety Manager, Small Hall, Spring 2008 - Spring 2010
- Steering Committee, Fall 2005 - Spring 2010
- Computer Committee, Fall 2005 - Spring 2006
- Faculty search committee (VMEC professorship), Fall 2006 - Spring 2006
- Faculty search committee (Hadronic theory), Fall 2004 - Spring 2005
- Search committee for teaching Lab Technician, Fall 2006
- Promotion committee for Prof. Todd Averett, 2009

- Chair, Tenure committee for Prof. Todd Averett, 2003
- Interim Review committee for Prof. Chris Carone, Spring 2000
- Faculty search committee (AMO/CM experiment), Fall 2000 - Spring 2002
- Graduate Admissions Committee, Fall 1994 - Spring 1998
- Undergraduate Committee, 1998 - 1999
- Machine Shop Oversight Committee, Spring 1999 - 2002
- Departmental System Adminstrator (with K.A. Griffioen), 1997
- Chair, Search Committee for System Admin/Postdoc in physics, Spring 1997
- GRE preparation sessions for physics seniors, Fall 2003 - Fall 2006, Fall 2008

### iii) Student Supervision

- Graduate Students: Gary Rutledge\* (PhD 2000), Jessica Clark (PhD 2002), Dan Steiner (MSc 1999), Bryan Moffit (PhD 2006), Stephanie Bailey (PhD 2007), Sarah Phillips<sup>†</sup> (PhD 2007), Carissa Capuano (PhD 2011), Brian Hahn (MSc 2007), John Leckey (PhD 2011), Joshua Hoskins<sup>‡</sup> (PhD 2015), Siyuan Yang (PhD 2016), Anatoly Ponomarev, Joshua Magee (PhD 2016), Valerie Gray (PhD 2017) James Dowd (PhD 2018), Victoria Owen, Ezekiel Wertz, Kate Evans

\*(co-supervised with J.M. Finn)

†(co-supervised with A. Lung)

‡(co-supervised with R.D. Carlini)

- Member of 60 Ph.D. annual review committees in Physics and one in Applied Science
- Member of 64 Ph.D. defence committees in Physics
- Supervised 15 honors thesis students and 19 senior thesis students
- Member of 22 honors thesis committees (Physics, Chemistry, Geology, Biology, Comp. Sci., Neuroscience, Math) (not including own students)
- Supervised nine NSF REU (Research Experience for Undergraduates) students, one Chappel summer fellowship student, one Wilson Cross-disciplinary summer student, and seven other summer students funded from our grants
- Freshman Advisor, 1994-1996, 1998, 2006-2008, 2012-2014, 2018-2022
- Advisor, Society of Physics Students, 1994, 1995

### Postdoctoral Student Supervision:

- Julie Roche (1999-2002); now Professor of Physics, Ohio University.
- Klaus Grimm (2003-2007); now Professor, Hochschule Furtwangen University, Germany
- Jeong Han Lee (2009-2012); now Staff Scientist and Engineer, Lawrence Berkeley National Lab.

## b) Other Professional Service:

- NSF panelist, 2022
- External Examiner, Ph.D. Dissertation, Stony Brook University, Fall 2021
- NSF panelist, 2021

- External Examiner, Ph.D. Dissertation, University of Adelaide, Spring 2019
- 2019 Organizing Committee, CUWiP (Conference for Undergraduate Women in Physics) 2019 conference at W&M.
- JLab Users Group Nominating committee - Chair 2016-2017; member 2017-2021
- APS/Group on Hadronic Physics nominating committee 2017-2018
- Jefferson Science Associates Initiatives Fund Evaluation Committee, 2012-2019; Chair 2016, 2017, 2018.
- W& M representative on JSA Program Committee, July 2011 - present
- NSF panelist, 2016
- Member, Local Organizing Committee, BEACH 2016 conference
- Member, International Advisory Committee, MENU 2016 conference
- Panel Member, Deutsche Forschungsgemeinschaft (DFG) Review of Collaborative Research Center 1044, "The Low Energy Frontier of the Standard Model" by Universitat Mainz, Sept 3-4 2015.
- Member, International Advisory Committee, 6th International Symposium on Symmetries in Subatomic Physics (2015)
- Member, SOLID proposals review committee, June 2014
- Member, Jefferson Lab Hall A Coordinating Committee, Sept 2014-Aug 2016
- Member, International Advisory committee, PAVI 2014 workshop.
- Member, International Advisory committee, MENU2013 conference.
- Member, Local organizing committee APS/DNP 2013 (American Physical Society, Division of Nuclear Physics) Annual Meeting (Newport News, VA).
- Chair, NSF Panel, review of N<sub>ab</sub> MRI proposal, May 30-June 1 2011.
- Member, International Advisory Committee, PAVI 2011 (5th International Conference on Parity Violation).
- Chair, Qweak Collaboration Institutional Council. August 2010-July 2012
- DOE Panelist, Intensity Frontier Review, August 10-12 2010.
- Co-chair, MENU 2010 Local organizing committee.
- Local organizer for workshop on Electroweak Physics at an Electron-Ion Collider, May 17-18 2010, William & Mary.
- Consultant to Gammasight (startup firm: applied nuclear physics).
- NSF panelist 2010
- External examiner, PhD defence of Maud Versteegen, U. Joseph Fourier (Grenoble 1), Grenoble, France, Oct. 9 2009.
- NSF panelist 2009
- Member, International Advisory Committee, PAVI 2009 (4th International Conference on Parity Violation).
- Co-convened and chaired session for SPIN 2008, at U. Virginia, October 6-10 2008.

- Member, Local organizing committee for APS/DNP (American Physical Society, Division of Nuclear Physics) 2007 Annual meeting; organized one day workshop on Electroweak and Precision Physics.
- Jefferson Lab User Group Board of Directors, June 2003 - June 2005
- Jefferson Lab Hall A Collaboration Coordinating Committee, June 2002 - June 2004; chair from June 2003
- Jefferson Lab Hall G<sup>0</sup> Collaboration Executive Committee, 2003 - 2010
- Presenter, JLab Cybersecurity Peer Review (May '05)
- Chaired Mini-Symposium at American Physical Society meeting, May 2004, Denver CO
- Organizing committee for DPF2002 (APS Division of Particles and Fields, 2002 meeting)
- Referee for Physical Review A, Physical Review C, Physical Review Letters, European Physical Journal A
- Grant Reviewer for National Science Foundation, Dept. of Energy, NSERC (Canada), Civilian Research and Development Foundation, Killam Research Fellowship (Canada), Jeffress Memorial Foundation
- Jefferson Lab Technical Review committee for PRIMEX experiment, Fall 2003
- TRIUMF User's Executive Committee, 1992

c) **Public Outreach:**

- Presentation on “Nuclear and Particle Physics” Camp Launch, July 20 2019 (Summer program for high ability/low income 7th and 8th grade students), William & Mary Center for Gifted Education.
- Science Fair Judge (high school), WJCC schools, Jan. 11 2019, Jan. 10 2020.
- Evaluator, Governor’s School of Science and Technology Spring Research Symposium, May 20 2013
- Technical/Content Advisor to Physics Flexbook Project (an open-source physics resource book for K-12 education in the Commonwealth of VA; supported by VA Sec. Education, Sec. Technology)
- Judge, Virginia Junior Academy of Science, Annual Conference, May 21 2008; May 27 2009
- Panel Member, Committee reviewing Virginia’s Standards of Learning (SOL) in Physics, May 21-23 2007; panel created by partnership of NASA and the Virginia Office of the Secretary of Education; panel wrote a white paper presented to the state Board of Education and Department of Education.
- Panel Member, Center for Talented Youth (Johns Hopkins) College Colloquium, 2000 - 2003
- Panel Member, Open House for prospective undergraduates, 1999, 2000, 2001
- Panel Member, Spring Workshop for High School Guidance Counselors, 2000
- Talk for middle & high school students “Focus on Future” (Center for Gifted Ed.) 2004
- Coffee Hour Talk for International House (Reeves Center), 2002
- Talk for high school students, STAR (Science Training and Research Program) program (Office Multicultural Affairs), 2000
- Science Fair Judge - York County Schools, 1997 - 2004, 2006-2009
- Science Fair Judge, Waller Mill Elementary School, 1999
- Five talks at local elementary schools, 2003, 2014
- Five talks at local middle schools 1998, 2002, 2003, 2004
- Two talks for Monroe Scholars Weekend, 2001
- Talks for Governor’s School in Science, W&M, 1994, 1995