

Calem R. Hoffman

- EDUCATION** Ph.D., Physics, Florida State University, Spring 2009
 B.S., Physics, Florida State University, Fall 2003
- POSITIONS HELD** **Assistant Physicist**
 Physics Division, Argonne National Laboratory, August 2012 - Present
Argonne Director's Postdoctoral Fellow
 Physics Division, Argonne National Laboratory, October 2010 - August 2012
Postdoctoral Researcher
 Physics Division, Argonne National Laboratory, May 2009 - October 2010
Graduate Research Assistant
 Department of Physics, Florida State University, May 2005 - May 2009
Graduate Teaching Assistant
 Department of Physics, Florida State University, January 2005 - May 2005
 Department of Physics, Michigan State University, September 2004 - December 2004
- AWARDS** **Dissertation Award in Nuclear Physics**
 American Physical Society Division of Nuclear Physics, February 2010
John D. Fox Award in Nuclear Physics
 Department of Physics, Florida State University, April 2007
- RESEARCH INTERESTS** Low energy nuclear structure physics, with a focus on the single-particle shell structure of exotic nuclei.
- PUBLICATIONS** **Single-neutron excitations in ^{18}N**
 C. R. Hoffman, M. Albers, M. Alcorta, S. Almaraz-Calderon, B. B. Back, S. I. Baker, S. Bedoor, P. F. Bertone, B. P. Kay, J. C. Lighthall, T. Palchan, R. C. Pardo, G. Perdikakis, K. E. Rehm, A. M. Rogers, D. Santiago-Gonzalez, Cenxi Yuan, and J. P. Schiffer, Phys. Rev. C **88**, 044317 (2013)
Quadrupole moments of coexisting collective shapes at high spin in ^{154}Er
 J. P. Revill, E. S. Paul, X. Wang, M. A. Riley, J. Simpson, R. V. F. Janssens, J. Ollier, A. J. Boston, M. P. Carpenter, C. J. Chiara, C. R. Hoffman, F. G. Kondev, T. Lauritsen, P. J. Nolan, J. M. Rees, S. V. Rigby, C. Unsworth, S. Zhu, and I. Ragnarsson, Phys. Rev. C **88**, 031304 (2013)
Structure of ^{14}B and the evolution of $N = 9$ single-neutron isotones
 S. Bedoor, A. H. Wuosmaa, J. C. Lighthall, M. Alcorta, B. B. Back, P. F. Bertone, B. A. Brown, C. M. Deibel, C. R. Hoffman, S. T. Marley, R. C. Pardo, K. E. Rehm, A. M. Rogers, J. P. Schiffer, and D. V. Shetty, Phys. Rev. C **88**, 011304(R) (2013)
Valence nucleon populations in the Ni isotopes
 J. P. Schiffer, C. R. Hoffman, B. P. Kay, J. A. Clark, C. M. Deibel, S. J. Freeman, M. Honma, A. M. Howard, A. J. Mitchell, T. Otsuka, P. D. Parker, D. K. Sharp, and J. S. Thomas, Phys. Rev. C **87**, 034306 (2013)
Neutron single-particle strength outside the $N = 50$ core
 D. K. Sharp, B. P. Kay, J. S. Thomas, S. J. Freeman, J. P. Schiffer, B. B. Back, S. Bedoor, T. Bloxham, J. A. Clark, C. M. Deibel, C. R. Hoffman, A. M. Howard, J. C. Lighthall, S. T. Marley, A. J. Mitchell, T. Otsuka, P. D. Parker, K. E. Rehm, D. V. Shetty, and A. H. Wuosmaa, Phys. Rev. C **87**, 014312 (2013)

Yrast structure of ^{206}Bi : Isomeric states and one-proton-particle, three-neutron-hole excitations

N. Cieplicka, K. H. Maier, B. Fornal, B. Szpak, R. V. F. Janssens, M. Alcorta, R. Broda, M. P. Carpenter, C. J. Chiara, C. R. Hoffman, B. P. Kay, F. G. Kondev, W. and Królas, T. Lauritsen, C. J. Lister, E. A. McCutchan, T. Pawlat, A. M. Rogers, D. Seweryniak, N. Sharp, W. B. Walters, J. Wrzesiński, J. and S. Zhu, Phys. Rev. C **86**, 054322 (2012)

Neutron unbound states in ^{28}Ne and ^{25}F

J. K. Smith, T. Baumann, B. A. Brown, G. Christian, J. E. Finck, C. R. Hoffman, Z. Kohley, S. Mosby, J. F. Novak, S. J. Quinn, J. Snyder, A. Spyrou, M. J. Strongman, and M. Thoennessen, Phys. Rev C **86**, 057302 (2012)

Well Developed Deformation in ^{42}Si

S. Takeuchi, M. Matsushita, N. Aoi, P. Doornenbal, K. Li, T. Motobayashi, H. Scheit, D. Steppenbeck, H. Wang, H. Baba, D. Bazin, L. Càceres, H. Crawford, P. Fallon, R. Gernhäuser, J. Gibelin, S. Go, S. Grévy, C. Hinke, C. R. Hoffman, R. Hughes, E. Ideguchi, D. Jenkins, N. Kobayashi, Y. Kondo, R. Krücken, T. Le Bleis, J. Lee, G. Lee, A. Matta, S. Michimasa, T. Nakamura, S. Ota, M. Petri, T. Sako, H. Sakurai, S. Shimoura, K. Steiger, K. Takahashi, M. Takechi, Y. Togano, R. Winkler, and K. Yoneda, Phys. Rev. Lett. **109**, 182501 (2012)

Low-spin states and the non-observation of a proposed 2202-keV, 0^+ isomer in ^{68}Ni

C. J. Chiara, R. Broda, W. B. Walters, R. V. F. Janssens, M. Albers, M. Alcorta, P. F. Bertone, M. P. Carpenter, C. R. Hoffman, T. Lauritsen, T. A. M. Rogers, D. Seweryniak, S. Zhu, F. G. Kondev, B. Fornal, W. Królas, J. Wrzesiński, N. Larson, S. N. Liddick, C. Prokop, S. Suchyta, H. M. David, and D. T. Doherty, Phys. Rev. C **86**, 041304(R) (2012)

Competing single-particle and collective behavior in ^{71}Se

A. R. Howe, R. A. Haring-Kaye, J. Döring, N. R. Baker, S. J. Kuhn, S. L. Tabor, S. R. Arora, J. K. Bruckman, and C. R. Hoffman, Phys. Rev. C **86**, 014328 (2012)

Lifetime of the 2_1^+ state in ^{10}C

E. A. McCutchan, C. J. Lister, Steven C. Pieper, R. B. Wiringa, D. Seweryniak, J. P. Greene, P. F. Bertone, M. P. Carpenter, C. J. Chiara, G. Gürdal, C. R. Hoffman, R. V. F. Janssens, T. L. Khoo, T. Lauritsen, and S. Zhu, Phys. Rev. C **86**, 014312 (2012)

Band structures and shape coexistence in ^{187}Pt

D. Hojman, M. A. Cardona, B. Roussière, J. Sauvage, M. A. Riley, S. L. Tabor, C. R. Hoffman, A. Aguilar, W. T. Cluff, T. Hinnners, K. Lagergren, S. Lee, M. Perry, A. Pipidis, and V. Tripathi, Eur. Phys. J A **48**, 83 (2012)

Experimental study of the $^{19}\text{O}(d,p)^{20}\text{O}$ reaction in inverse kinematics

C. R. Hoffman, B. B. Back, B. P. Kay, J. P. Schiffer, M. Alcorta, S. I. Baker, S. Bedoor, P. F. Bertone, J. A. Clark, C. M. Deibel, B. DiGiovine, S. J. Freeman, J. P. Greene, J. C. Lighthall, S. T. Marley, R. C. Pardo, K. E. Rehm, A. Rojas, D. Santiago-Gonzalez, D. K. Sharp, D. V. Shetty, J. S. Thomas, I. Wiedenhöver, and A. H. Wuosmaa, Phys. Rev. C **85**, 054318 (2012)

Multi-intruder structures in ^{34}P

P. C. Bender, S. L. Tabor, Vandana Tripathi, C. R. Hoffman, L. Hamilton, A. Volya, R. M. Clark, P. Fallon, A. O. Macchiavelli, S. Paschalis, M. Petri, M. P. Carpenter, R. V. F. Janssens, T. Lauritsen, E. A. McCutchan, D. Seweryniak, S. Zhu, C. J. Chiara, X. Chen, W. Reviol, D. G. Sarantites, and Y. Toh, Phys. Rev. C. **85**, 044305 (2012)

Test of sum rules in nucleon transfer reactions

J. P. Schiffer, C. R. Hoffman, B. P. Kay, J. A. Clark, C. M. Deibel, S. J. Freeman, A. M. Howard, A. J. Mitchell, P. D. Parker, D. K. Sharp, and J. S. Thomas, Phys. Rev. Lett. **108**, 022501 (2012)

Seniority, collectivity, and $B(E2)$ enhancement in ^{72}Ni

C. J. Chiara, W. B. Walters, I. Stefanescu, M. Alcorta, M. P. Carpenter, B. Fornal, G. Gürdal, C. R. Hoffman, R. V. F. Janssens, B. P. Kay, F. G. Kondev, W. Królas, W. T. Lauritsen, C. J. Lister, E. A. McCutchan, T. Pawlat, A. M. Rogers, D. Seweryniak, N. Sharp, J. Wrzesiński, and S. Zhu, *Phys. Rev. C* **84**, 037304 (2011)

Single-neutron energies outside ^{136}Xe

B. P. Kay, J. P. Schiffer, S. J. Freeman, C. R. Hoffman, B. B. Back, S. I. Baker, S. Bedoor, T. Bloxham, J. A. Clark, C. M. Deibel, A. M. Howard, J. C. Lighthall, S. T. Marley, K. E. Rehm, D. K. Sharp, D. V. Shetty, J. S. Thomas, and A. H. Wuosmaa, *Phys. Rev. C* **84**, 024325 (2011)

Transition strengths and the role of the $f_{7/2}$ orbital in ^{71}As

R. A. Kaye, C. J. Drover, S. L. Tabor, J. Döring, Y.-C. Yang, Y. Sun, S. R. Arora, N. R. Baker, J. K. Bruckman, T. A. Hinnners, C. R. Hoffman, and S. Lee, *Phys. Rev. C* **83**, 044316 (2011)

Observation of a two-neutron cascade from a resonance in ^{24}O

C. R. Hoffman, T. Baumann, J. Brown, P. A. DeYoung, J. E. Finck, N. Frank, J. D. Hinnfeld, S. Mosby, W. A. Peters, W. F. Rogers, A. Schiller, J. Snyder, A. Spyrou, S. L. Tabor, and M. Thoennessen, *Phys. Rev. C* **83**, 031303 (2011)

2010

$^{15}\text{C}(d,p)^{16}\text{C}$ Reaction and Exotic Behavior in ^{16}C

A. H. Wuosmaa, B. B. Back, S. Baker, B. A. Brown, C. M. Deibel, P. Fallon, C. R. Hoffman, B. P. Kay, H. Y. Lee, J. C. Lighthall, A. O. Macchiavelli, S. T. Marley, R. C. Pardo, K. E. Rehm, J. P. Schiffer, D. V. Shetty, and M. Wiedeking, *Phys. Rev. Lett.* **105**, 132501 (2010)

Collectivity at $N = 40$ in neutron-rich ^{64}Cr

A. Gade, R. V. F. Janssens, T. Baugher, D. Bazin, B. A. Brown, M. P. Carpenter, C. J. Chiara, A. N. Deacon, S. J. Freeman, G. F. Grinyer, C. R. Hoffman, B. P. Kay, F. G. Kondev, T. Lauritsen, S. McDaniel, K. Meierbachtol, A. Ratkiewicz, S. R. Stroberg, K. A. Walsh, D. Weisshaar, R. Winkler, and S. Zhu, *Phys. Rev. C* **81**, 051304(R) (2010)

First Experiment with HELIOS: The Structure of ^{13}B

B. B. Back, S. I. Baker, B. A. Brown, C. M. Deibel, S. J. Freeman, B. J. DiGiovine, C. R. Hoffman, B. P. Kay, H. Y. Lee, J. C. Lighthall, S. T. Marley, R. C. Pardo, K. E. Rehm, J. P. Schiffer, D. V. Shetty, A. W. Vann, J. Winkelbauer, and A. H. Wuosmaa, *Phys. Rev. Lett.* **104**, 132501 (2010)

Cross-shell excitations in ^{30}Al and ^{30}Si at high spin

D. Steppenbeck, A. N. Deacon, S. J. Freeman, R. V. F. Janssens, M. P. Carpenter, C. R. Hoffman, B. P. Kay, T. Lauritsen, C. J. Lister, D. O'Donnell, J. Ollier, D. Seweryniak, J. F. Smith, K.-M. Spohr, S. L. Tabor, V. Tripathi, P. T. Wady, and S. Zhu, *Nuc. Phys. A* **847**, 149 (2010)

Reply: Comment on “Intruder Configurations in the $A=33$ Isobars: ^{33}Mg and ^{33}Al ”

V. Tripathi, S. L. Tabor, P. F. Mantica, Y. Utsuno, P. C. Bender, J. Cook, C. R. Hoffman, Sangjin Lee, T. Otsuka, J. Pereira, M. Perry, K. Pepper, J. S. Pinter, J. Stoker, A. Volya, and D. Weisshaar, *Phys. Rev. Lett.* **104**, 129202 (2010)

First observation of excited states in ^{12}Li

C. C. Hall, E. M. Lunderberg, P. A. DeYoung, T. Baumann, D. Bazin, G. Blanchon, A. Bonaccorso, B. A. Brown, J. Brown, G. Christian, D. H. Denby, J. Finck, N. Frank, A. Gade, J. Hinnfeld, C. R. Hoffman, B. Luther, S. Mosby, W. A. Peters, A. Spyrou, and M. Thoennessen, *Phys. Rev. C* **81**, 021302(R) (2010)

2009

Disappearance of the $N = 14$ shell

M. J. Strongman, A. Spyrou, C. R. Hoffman, T. Baumann, D. Bazin, J. Brown, P. A. DeYoung, J. E. Finck, N. Frank, S. Mosby, W. F. Rogers, G. F. Peaslee, W. A. Peters, A. Schiller, S. L. Tabor, and M. Thoennessen, *Phys. Rev. C* **80**, 021302(R) (2009)

Approaching the “island of inversion”: ^{34}P

P. C. Bender, C. R. Hoffman, M. Wiedeking, J. M. Allmond, L. A. Bernstein, J. T. Burke, D. L. Bleuel, R. M. Clark, P. Fallon, B. L. Goldblum, T. A. Hinnners, H. B. Jeppesen, Sangjin Lee, I.-Y. Lee, S. R. Leshner, A. O. Macchiavelli, M. A. McMahan, D. Morris, M. Perry, L. Phair, N. D. Scielzo, S. L. Tabor, Vandana Tripathi, and A. Volya, *Phys. Rev. C* **80**, 014302 (2009)

Low-energy structure of ^{61}Mn populated following beta decay of ^{61}Cr

H. L. Crawford, P. F. Mantica, J. S. Berryman, R. Broda, B. Fornal, C. R. Hoffman, N. Hoteling, R. V. F. Janssens, S. M. Lenzi, J. Pereira, J. B. Stoker, S. L. Tabor, W. B. Walters, X. Wang and S. Zhu, *Phys. Rev. C* **79**, 054320 (2009)

Evidence for a doubly magic ^{24}O

C. R. Hoffman, T. Baumann, D. Bazin, J. Brown, G. Christian, D. H. Denby, P. A. DeYoung, J. E. Finck, N. Frank, J. Hinnefeld, S. Mosby, W. A. Peters, W. F. Roger, A. Schiller, A. Spyrou, M. J. Scott, S. L. Tabor, M. Thoennessen, and P. Voss, *Phys. Lett. B* **672**, 17 (2009)

2008

Ground State Energy and Width of ^7He from ^8Li Proton Knockout

D.H. Denby, P.A. DeYoung, T. Baumann, D. Bazin, E. Breitbach, J. Brown, N. Frank, A. Gade, C.C. Hall, J. Hinnefeld, C.R. Hoffman, R. Howes, R.A. Jenson, B. Luther, S.M. Mosby, C.W. Olson, W.A. Peters, A. Schiller, A. Spyrou, and M. Thoennessen, *Phys. Rev. C* **78**, 044303 (2008)

Linear polarization measurements and negative-parity states in ^{80}Sr

R. A. Kaye, C. S. Myers, J. Döring, S. L. Tabor, S. M. Gerbick, T. D. Baldwin, D. B. Campbell, C. Chandler, M. W. Cooper, M. A. Hallstrom, C. R. Hoffman, J. Pavan, L. A. Riley, and M. Wiedeking, *Phys. Rev. C* **78**, 037303 (2008)

Intruder configurations in the $A = 33$ isobars of ^{33}Mg and ^{33}Al

Vandana Tripathi, S. L. Tabor, P. F. Mantica, Y. Utsuno, P. Bender, J. Cook, C. R. Hoffman, Sangjin Lee, T. Otsuka, J. Pereira, M. Perry, K. Pepper, J. S. Pinter, J. Stoker, A. Volya, and D. Weisshaar, *Phys. Rev. Lett.* **101**, 142504 (2008)

Determination of the $N = 16$ shell closure at the oxygen drip line

C. R. Hoffman, T. Baumann, D. Bazin, J. Brown, G. Christian, P. A. DeYoung, J. E. Finck, N. Frank, J. Hinnefeld, R. Howes, P. Mears, E. Mosby, S. Mosby, J. Reith, B. Rizzo, W. F. Rogers, G. Peaslee, W. A. Peters, A. Schiller, M. J. Scott, S. L. Tabor, M. Thoennessen, P. J. Voss, and T. Williams, *Phys. Rev. Lett.* **100**, 152502 (2008)

Excited intruder states in ^{32}Mg

Vandana Tripathi, S. L. Tabor, P. Bender, C. R. Hoffman, Sangjin Lee, K. Pepper, M. Perry, P. F. Mantica, J. M. Cook, J. Pereira, J. S. Pinter, J. B. Stoker, D. Weisshaar, Y. Utsuno, and T. Otsuka, *Phys. Rev. C* **77**, 034310 (2008)

Complementary studies of $T = 2$ ^{30}Al and the systematics of intruder states

T. A. Hinnners, Vandana Tripathi, S. L. Tabor, A. Volya, P. C. Bender, C. R. Hoffman, Sangjin Lee, M. Perry, P. F. Mantica, A. D. Davies, S. N. Liddick, W. F. Mueller, A. Stolz, and B. E. Tomlin, *Phys. Rev. C* **77**, 034305 (2008)

β decay of neutron-rich $^{53-56}\text{Ca}$

P. F. Mantica, R. Broda, H. L. Crawford, A. Damaske, B. Fornal, A. A. Hecht, C. Hoffman, M. Horoi, N. Hoteling, R. V. F. Janssens, J. Pereira, J. S. Pinter, J. B. Stoker, S. L. Tabor, T. Sumikama, W. B. Walters, X. Wang, and S. Zhu, *Phys. Rev. C* **77**, 014313 (2008)

Production of nuclei in neutron unbound states via primary fragmentation of ^{48}Ca

G. Christian, W.A. Peters, D. Absalon, D. Albertson, T. Baumann, D. Bazin, E. Breitbach, J. Brown, P.L. Cole, D. Denby, P.A. DeYoung, J.E. Finck, N. Frank, A. Fritsch, C. Hall, A.M. Hayes, J. Hinnefeld, C.R. Hoffman, R. Howes, B. Luther, E. Mosby, S. Mosby, D. Padilla, P.V. Pancella, G. Peaslee, W.F. Rogers, A. Schiller, M.J. Strongman, M. Thoennessen, and L.O. Wagner, *Nucl.*

Phys. A **801**, 101 (2008)

- 2007 **Electromagnetic transitions in neutron-rich ^{22}F**
Sangjin Lee, S. L. Tabor, A. Volya, A. Aguilar, P. C. Bender, T. A. Hinnners, C. R. Hoffman, M. Perry, and Vandana Tripathi, Phys. Rev. C **76**, 034308 (2007)
- Competition between normal and intruder states inside the “island of inversion”**
Vandana Tripathi, S. L. Tabor, P. F. Mantica, Y. Utsuno, P. Bender, J. Cook, C. R. Hoffman, Sangjin Lee, T. Otsuka, J. Pereira, M. Perry, K. Pepper, J. S. Pinter, J. Stoker, A. Volya, and D. Weisshaar, Phys. Rev. C **76**, 021301(R) (2007)
- Transition strengths and degree of deformation in ^{79}Sr**
R. A. Kaye, Y. K. Ryu, S. R. Arora, S. L. Tabor, J. Döring, Y. Sun, T. D. Baldwin, D. B. Campbell, C. Chandler, M. W. Cooper, S. M. Gerbick, O. Grubor-Urosevic, C. R. Hoffman, J. Pavan, L. A. Riley, and M. Wiedeking, Phys. Rev. C **75**, 034311 (2007)
- 2006 **Astrophysical Reaction Rate for the Neutron-Generator Reaction $^{13}\text{C}(\alpha, n)^{16}\text{O}$ in Asymptotic Giant Branch Stars**
E. D. Johnson, G. V. Rogachev, A. M. Mukhamedzhanov, L. T. Baby, S. Brown, W. T. Cluff, A. M. Crisp, E. Diffenderfer, V. Z. Goldberg, B. W. Green, T. Hinnners, C. R. Hoffman, K. W. Kemper, O. Momotyuk, P. Peplowski, A. Pipidis, R. Reynolds, and B. T. Roeder, Phys. Rev. Lett. **97**, 192701 (2006)
- β -delayed γ spectroscopy of neutron rich $^{27,28,29}\text{Na}$**
Vandana Tripathi, S. L. Tabor, C. R. Hoffman, M. Wiedeking, A. Volya, P. F. Mantica, A. D. Davies, S. N. Liddick, W. F. Mueller, A. Stolz, B. E. Tomlin, T. Otsuka, and Y. Utsuno, Phys. Rev. C **73**, 054303 (2006)
- Structure of ^{26}Na from the $^{14}\text{C}(^{14}\text{C}, \text{d})$ reaction**
Sangjin Lee, S. L. Tabor, T. Baldwin, D. B. Campbell, I. Calderin, C. Chandler, M. W. Cooper, C. R. Hoffman, K. W. Kemper, J. Pavan, A. Pipidis, M. A. Riley, and M. Wiedeking, Phys. Rev. C **73**, 044321 (2006)
- 2005 **Observation of Proton Radioactivity of the (21^+) High-Spin Isomer in ^{94}Ag**
I. Mukha, E. Roeckl, J. Döring, L. Batist, A. Blazhev, H. Grawe, C. R. Hoffman, M. Huyse, Z. Janas, R. Kirchner, M. La Commara, C. Mazzocchi, C. Plettner, S. L. Tabor, P. Van Duppen, and M. Wiedeking, Phys. Rev. Lett. **95**, 022501 (2005)
- Spectroscopy of ^{25}Ne and the $N = 16$ magic number**
S. W. Padgett, Vandana Tripathi, S. L. Tabor, P. F. Mantica, C. R. Hoffman, M. Wiedeking, A. D. Davies, S. N. Liddick, W. F. Mueller, A. Stolz, and B. E. Tomlin, Phys. Rev. C **72**, 064330 (2005)
- ^{29}Na : Defining the Edge of the Island of Inversion for $Z = 11$**
Vandana Tripathi, S. L. Tabor, P. F. Mantica, C. R. Hoffman, M. Wiedeking, A. D. Davies, S. N. Liddick, W. F. Mueller, T. Otsuka, A. Stolz, B. E. Tomlin, Y. Utsuno, and A. Volya, Phys. Rev. Lett. **94**, 162501 (2005)
- $p - sd$ Shell Gap Reduction in Neutron-Rich Systems and Cross-Shell Excitations in ^{20}O**
M. Wiedeking, S. L. Tabor, J. Pavan, A. Volya, A. L. Aguilar, I. J. Calderin, D. B. Campbell, W. T. Cluff, E. Diffenderfer, J. Fridmann, C. R. Hoffman, K. W. Kemper, S. Lee, M. A. Riley, B. T. Roeder, C. Teal, V. Tripathi, and I. Wiedenhover, Phys. Rev. Lett. **94**, 132501 (2005)

2004

β -delayed proton decay of a high-spin isomer in ^{94}Ag

I. Mukha, L. Batist, E. Roeckl, H. Grawe, J. Döring, A. Blazhev, C. R. Hoffman, Z. Janas, R. Kirchner, M. La Commara, S. Dean, C. Mazzocchi, C. Plettner, S. L. Tabor, and M. Wiedeking, Phys. Rev. C **70**, 044311 (2004)

Collective excitations and shape changes in ^{80}Y

R. A. Kaye, O. Grubor-Urosevic, S. L. Tabor, J. Döring, Y. Sun, R. Palit, J. A. Sheikh, T. Baldwin, D. B. Campbell, C. Chandler, M. W. Cooper, S. M. Gerbick, C. R. Hoffman, J. Pavan, L. A. Riley, and M. Wiedeking, Phys. Rev. C **69**, 064314 (2004)

On the β -decaying (21^+) spin gap isomer in ^{94}Ag

C. Plettner, H. Grawe, I. Mukha, J. Döring, F. Nowacki, L. Batist, A. Blazhev, C. R. Hoffman, Z. Janas, R. Kirchner, M. La Commara, C. Mazzocchi, E. Roeckl, R. Schwengner, S. L. Tabor, and M. Wiedeking, Nuc. Phys. A **733**, 20 (2004)

2003

Structure of $T = 2$ ^{24}Ne from ^{14}C on ^{14}C

C. R. Hoffman, S. L. Tabor, M. W. Cooper, T. Baldwin, D. B. Campbell, C. Chandler, K. W. Kemper, J. Pavan, A. Pipidis, M. A. Riley, M. Wiedeking, and B. A. Brown, Phys. Rev. C **68**, 034304 (2003)

2002

$T = \frac{5}{2}$ ^{27}Na from $^{14}\text{C}+^{14}\text{C}$, and the $N = 16$ shell gap

M. W. Cooper, S. L. Tabor, T. Baldwin, D. B. Campbell, C. Chandler, C. R. Hoffman, K. W. Kemper, J. Pavan, A. Pipidis, M. A. Riley, and M. Wiedeking, Phys. Rev. C **65**, 051302 (2002)

PROCEEDINGS

Search for Intruder States in ^{68}Ni and ^{67}Co

C. J. Chiara, W. B. Walters, R. V. F. Janssens, R. Broda, M. Albers, M. Alcorta, P. F. Bertone, M. P. Carpenter, C. R. Hoffman, T. Lauritsen, A. M. Rogers, D. Seweryniak, S. Zhu, F. G. Kondev, B. Fornal, W. Królas, J. Wrzesiski, N. Larson, S. N. Liddick, C. Prokop, S. Suchyta, H. M. David, and D. T. Doherty, Acta Physica Polonica B, Vol. **44** 371, 2013.

The deformed 0^+ state in ^{34}Si

S. Paschalis, P. Fallon, A. O. Macchiavelli, M. Petri, P. C. Bender, M. P. Carpenter, X. Chen, C. J. Chiara, R. M. Clark, M. Cromaz, S. Gros, L. Hamilton, C. R. Hoffman, R. V. F. Janssens, T. Lauritsen, I. Y. Lee, C. J. Lister, E. A. McCutchan, L. Phair, W. Reviol, D. G. Sarantites, D. Seweryniak, S. L. Tabor, Y. Toh, M. Wiedeking and S. Zhu, International Nuclear Physics Conference 2010 (INPC2010), J. Phys.: Conf. Ser. **312**, 092050, 2011.

Study of valence neutrons in ^{136}Xe with HELIOS

B. P. Kay, J. P. Schiffer, S. J. Freeman, B. B. Back, S. Bedoor, S. I. Baker, T. Bloxham, J. A. Clark, C. M. Deibel, C. R. Hoffman, A. M. Howard, J. C. Lighthall, S. T. Marley, K. E. Rehm, D. K. Sharp, D. V. Shetty, J. S. Thomas and A. H. Wuosmaa, International Nuclear Physics Conference 2010 (INPC2010), J. Phys.: Conf. Ser. **312** 092034, 2011.

High-spin states and deformation properties in ^{187}Pt

M. A. Cardona, D. Hojman, A. Aguilar, W. T. Cluff, T. Hinnners, C. R. Hoffman, K. Lagergren, S. Lee, M. Perry, A. Pipidis, M. A. Riley, S. L. Tabor and V. Tripathi, AIP Conference Proceedings, **884**, 448-449, 2007.

Studies of β -delayed proton decays of $N \sim Z$ nuclei around 100Sn at the GSI-ISOL facility

I. Mukha, L. Batist, F. Becker, A. Blazhev, A. Bruchle, J. Döring, M. Gorska, H. Grawe, T. Faestermann, C. Hoffman, Z. Janas, A. Jungclaus, M. Karny, M. Kavatsyuk, O. Kavatsyuk, R. Kirchner, M. La Commara, C. Mazzocchi, C. Plettner, A. Plochocki, E. Roeckl, M. Romoli, M. Schadel, R. Schwengner, S. L. Tabor, M. Wiedeking and GSI ISOL Collaboration, Proceedings of the Sixth International Conference on Radioactive Nuclear Beams (RNB6), Nucl. Phys. A **746**, 66-70, 2004.

INVITED TALKS

Structure of $p - sd$ shell nuclei with HELIOS

INPC 2013, Florence, Italy, June 2013

Nuclear spectroscopy with HELIOS

APS April Meeting, Denver, CO, April 2013

2012

Characterizing neutron $0p - 1s0d$ single-particle evolution in neutron-rich nuclei

INT Workshop on the Structure of Light Nuclei,
University of Washington, WA, October 8-12, 2012

On the evolution of the neutron $0d_{5/2}$ and $1s_{1/2}$ orbitals in neutron-rich $0p - 1s0d$ shell nuclei

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

2010

Shell Evolution and Magic Numbers in Neutron-Rich Nuclei

Florida State University Colloquium, Tallahassee, FL, December 2, 2010

Two-neutron cascade at the oxygen drip line

Nuclear Structure 2010, Clark-Kerr Campus, U. C. Berkeley, CA, August 8-13, 2010

Dissertation award in nuclear physics

American Physical Society April Meeting, Washington, D. C., February 13-16, 2010

2009

Shell evolution at the oxygen drip line

VIII Latin American Symposium on Nuclear Physics and Applications,
Universidad de Chile, Santiago, Chile, December 15-19, 2009

2008

Spectroscopy of unbound states at the oxygen drip line

Unbound Nuclei Workshop, INFN, Pisa, Italy, November 3-5, 2008

Investigating the $N = 16$ shell closure at the oxygen drip line

Nuclear Structure 2008, Michigan State University, East Lansing, MI, June 3-6, 2008

2007

First Observation of ^{25}O

National Superconducting Cyclotron Laboratory User Workshop, East Lansing, MI, August 16-17, 2007

Unbound states of neutron-rich Oxygen isotopes

JUSTIPEN-EFES workshop on shell structure of exotic nuclei 4th workshop by the DOE project JUSTIPEN and the JSPS core-to-core project EFES, RIKEN, Tokyo, Japan, June 23, 2007

Unbound States of neutron-rich oxygen isotopes: Investigation into the $N = 16$ shell gap

Nuclear Structure: New Pictures in the Extended Isospin Space, Yukawa Institute for Theoretical Physics, Kyoto University, Kyoto, Japan, June 11-14, 2007

Unbound states of neutron-rich oxygen isotopes: Investigation into the $N = 16$ shell gap

Direct Reactions with Exotic Beams, RIKEN, Tokyo, Japan, May 30 - June 2, 2007

ACTIVITIES

ANL Physics Division Heavy-Ion Discussion Group Chair

September 2013 - Present

Referee for Physics Letters B

January 2012 - Present

Referee for the Physical Review Journals

American Physical Society, January 2011 - Present

ANL Physics Division Colloquium Committee Member
September 2010 - August 2011

Japan-U.S. Institute for Physics with Exotic Nuclei (JUSTIPEN)
RIKEN, Tokyo, Japan, October 2010

Japan-U.S. Institute for Physics with Exotic Nuclei (JUSTIPEN)
RIKEN, Tokyo, Japan, June 2007

The Fourth Rare Isotope Accelerator Summer School
Lawrence Berkeley National Laboratory, Berkeley, CA, Summer 2005

The Third Rare Isotope Accelerator Summer School
Argonne National Laboratory, Argonne, IL, Summer 2004