

## Calem R. Hoffman

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- 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 & Astronomy, 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.
- PEER-REVIEWED PUBLICATIONS
- 2016
1. **Single-particle and collective excitations in  $^{62}\text{Ni}$**   
M. Albers, S. Zhu, A. D. Ayangeakaa, R. V. F. Janssens, J. Gellanki, I. Ragnarsson, M. Alcorta, T. Baugher, P. F. Bertone, M. P. Carpenter, C. J. Chiara, P. Chowdhury, H. M. David, A. N. Deacon, B. DiGiovine, A. Gade, C. R. Hoffman, F. G. Kondev, T. Lauritsen, C. J. Lister, E. A. McCutchan, C. Nair, A. M. Rogers, and D. Seweryniak, *Phys. Rev. C* **94**, 034301 (2016)
  2. **Ordering of the  $0d_{5/2}$  and  $1s_{1/2}$  proton levels in light nuclei**  
C. R. Hoffman, B. P. Kay, and J. P. Schiffer, *Phys. Rev. C* **94**, 024330 (2016)
  3. **Population and decay of a  $K^\pi = 8^-$  two-quasineutron isomer in  $^{244}\text{Pu}$**   
S. S. Hota, S. K. Tandel, P. Chowdhury, I. Ahmad, M. P. Carpenter, C. J. Chiara, J. P. Greene, C. R. Hoffman, E. G. Jackson, R. V. F. Janssens, B. P. Kay, T. L. Khoo, F. G. Kondev, S. Lakshmi, S. Lalkovski, T. Lauritsen, C. J. Lister, E. A. McCutchan, K. Moran, D. Peterson, U. Shirwadkar, D. Seweryniak, I. Stefanescu, Y. Toh, and S. Zhu, *Phys. Rev. C* **94**, 021303(R) (2016)
  4. **Change of nuclear configurations in the neutrinoless double- $\beta$  decay of  $^{130}\text{Te} \rightarrow ^{130}\text{Xe}$  and  $^{136}\text{Xe} \rightarrow ^{136}\text{Ba}$**   
J. P. Entwisle, B. P. Kay, A. Tamii, S. Adachi, N. Aoi, J. A. Clark, S. J. Freeman, H. Fujita, Y. Fujita, T. Furuno, T. Hashimoto, C. R. Hoffman, E. Ideguchi, T. Ito, C. Iwamoto, T. Kawabata, B. Liu, M. Miura, H. J. Ong, J. P. Schiffer, D. K. Sharp, G. Susoy, T. Suzuki, S. V. Szwece, M. Takaki, M. Tsumura, and T. Yamamoto, *Phys. Rev. C* **93**, 064312 (2016)

5. **Independent measurement of the Hoyle state  $\beta$  feeding from  $^{12}\text{B}$  using Gammasphere**  
M. Munch, M. Alcorta, H. O. U. Fynbo, M. Albers, S. Almaraz-Calderon, M. L. Avila, A. D. Ayangeakaa, B. B. Back, P. F. Bertone, P. F. F. Carnelli, M. P. Carpenter, C. J. Chiara, J. A. Clark, B. DiGiovine, J. P. Greene, J. L. Harker, [C. R. Hoffman](#), N. J. Hubbard, C. L. Jiang, O. S. Kirsebom, T. Lauritsen, K. L. Laursen, S. T. Marley, C. Nair, O. Nusair, D. Santiago-Gonzalez, J. Sethi, D. Seweryniak, R. Talwar, C. Ugalde, and S. Zhu, [Phys. Rev. C \*\*93\*\*, 065803 \(2016\)](#)
6. **Structure of  $^{14}\text{C}$  and  $^{14}\text{B}$  from the  $^{14,15}\text{C}(d,^3\text{He})^{13,14}\text{B}$  reactions**  
S. Bedoor, A. H. Wuosmaa, M. Albers, M. Alcorta, Sergio Almaraz-Calderon, B. B. Back, P. F. Bertone, C. M. Deibel, [C. R. Hoffman](#), J. C. Lighthall, S. T. Marley, D. G. Mcneel, R. C. Pardo, K. E. Rehm, J. P. Schiffer, and D. V. Shetty, [Phys. Rev. C \*\*93\*\*, 044323 \(2016\)](#)
7. **Shape coexistence and the role of axial asymmetry in  $^{72}\text{Ge}$**   
A. D. Ayangeakaa, R. V. F. Janssens, C. Y. Wu, J. M. Allmond, J. L. Wood, S. Zhu, M. Albers, S. Almaraz-Calderon, B. Bucher, M. P. Carpenter, C. J. Chiara, D. Cline, H.L. Crawford, H. M. David, J. Harker, A.B. Hayes, [C. R. Hoffman](#), B. P. Kay, K. Kolos, A. Korichi, T. Lauritsen, A. O. Macchiavelli, A. Richard, D. Seweryniak and A. Wiens, [Phy. Lett. B \*\*754\*\*, 254 \(2016\)](#)
8. **Direct Evidence of Octupole Deformation in Neutron-Rich  $^{144}\text{Ba}$**   
B. Bucher, S. Zhu, C. Y. Wu, R. V. F. Janssens, D. Cline, A. B. Hayes, M. Albers, A. D. Ayangeakaa, P. A. Butler, C. M. Campbell, M. P. Carpenter, C. J. Chiara, J. A. Clark, H. L. Crawford, M. Cromaz, H. M. David, C. Dickerson, E. T. Gregor, J. Harker, [C. R. Hoffman](#), B. P. Kay, F. G. Kondev, A. Korichi, T. Lauritsen, A. O. Macchiavelli, R. C. Pardo, A. Richard, M. A. Riley, G. Savard, M. Scheck, D. Seweryniak, M. K. Smith, R. Vondrasek, and A. Wiens, [Phys. Rev. Lett. \*\*116\*\*, 112503 \(2016\)](#)
9. **In-beam  $\gamma$ -ray spectroscopy of  $^{63}\text{Mn}$**  T. Baugher, A. Gade, R. V. F. Janssens, S. M. Lenzi, D. Bazin, 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, E. M. Lunderberg, S. McDaniel, K. C. Meierbachtol, A. Ratkiewicz, S. R. Stroberg, K. A. Walsh, D. Weisshaar, and S. Zhu, [Phys. Rev. C \*\*93\*\*, 014313 \(2016\)](#)
10. **Decay and Fission Hindrance of Two- and Four-Quasiparticle  $K$  Isomers in  $^{254}\text{Rf}$**   
H. M. David, J. Chen, D. Seweryniak, F. G. Kondev, J. M. Gates, K. E. Gregorich, I. Ahmad, M. Albers, M. Alcorta, B. B. Back, B. Baartman, P. F. Bertone, L. A. Bernstein, C. M. Campbell, M. P. Carpenter, C. J. Chiara, R. M. Clark, M. Cromaz, D. T. Doherty, G. D. Dracoulis, N. E. Esker, P. Fallon, O. R. Gothe, J. P. Greene, P. T. Greenlees, D. J. Hartley, K. Hauschild, [C. R. Hoffman](#), S. S. Hota, R. V. F. Janssens, T. L. Khoo, J. Konki, J. T. Kwarsick, T. Lauritsen, A. O. Macchiavelli, P. R. Mudder, C. Nair, Y. Qiu, J. Rissanen, A. M. Rogers, P. Ruotsalainen, G. Savard, S. Stolze, A. Wiens, and S. Zhu, [Phys. Rev. Lett. \*\*115\*\*, 132502 \(2015\)](#)
11. **Analogous intruder behavior near Ni, Sn, and Pb isotopes**  
S. N. Liddick, W. B. Walters, C. J. Chiara, R. V. F. Janssens, B. Abromeit, A. Ayres, A. Bey, C. R. Bingham, M. P. Carpenter, L. Cartegni, J. Chen, H. L. Crawford, I. G. Darby, R. Grzywacz, J. Harker, [C. R. Hoffman](#), S. Ilyushkin, F. G. Kondev, N. Larson, M. Madurga, D. Miller, S. Padgett, S. V. Paulauskas, M. M. Rajabali, K. Rykaczewski, D. Seweryniak, S. Suchyta, and S. Zhu, [Phys. Rev. C \*\*92\*\*, 024319 \(2015\)](#)
12. **Persistence of collective behavior at high spin in the  $N = 88$  nucleus  $^{153}\text{Tb}$**   
D. J. Hartley, M. A. Riley, X. Wang, S. Miller, R. V. F. Janssens, E. S. Paul, J. M. Rees, J. Simpson, L. L. Riedinger, A. D. Ayangeakaa, M. P. Carpenter, C. J. Chiara, U. Garg, P. Hampson,

C. R. Hoffman, F. G. Kondev, T. Lauritsen, P. J. Mason, J. T. Matta, P. J. Nolan, J. Ollier, M. Petri, D. C. Radford, J. P. Revill, S. Zhu, and I. Ragnarsson, Phys. Rev. C **91**, 057301 (2015)

13. **Core excitations across the neutron shell gap in  $^{207}\text{Tl}$**   
E. Wilson, Zs. Podolyak, H. Grawe, B. A. Brown, C. J. Chiara, S. Zhu, B. Fornal, R. V. F. Janssens, C. M. Shand, M. Bowry, M. Bunce, M. P. Carpenter, N. Cieplicka-Orynczak, A. Y. Deo, G. D. Dracoulis, C. R. Hoffman, R. S. Kempley, F. G. Kondev, G. J. Lane, T. Lauritsen, G. Lotay, M. W. Reed, P. H. Regan, C. Rodriguez Triguero, D. Seweryniak, B. Szpak and P.M. Walker, Phys. Lett. B (2015)
14. **High-spin terminating states in the  $N=88$   $^{155}\text{Ha}$  and  $^{156}\text{Er}$  isotones**  
J. M. Rees, E. S. Paul, J. Simpson, M. A. Riley, A. D. Ayangeakaa, M. P. Carpenter, C. J. Chiara, U. Garg, P. Hampson, D. J. Hartley, C. R. Hoffman, R. V. F. Janssens, F. G. Kondev, T. Lauritsen, P. J. R. Mason, J. Matta, S. L. Miller, P. J. Nolan, J. Ollier, M. Petri, D. C. Radford, J. P. Revill, X. Wang, S. Zhu, J. Gellanki, and I. Ragnarsson, Phys. Rev. C **91**, 054301 (2015)
15. **Role of the  $\nu g_{9/2}$  orbital in the development of collectivity in the  $A\approx 60$  region: The case of  $^{61}\text{Co}$**   
A. D. Ayangeakaa, S. Zhu, R. V. F. Janssens, M. P. Carpenter, M. Albers, M. Alcorta, T. Baugher, P. F. Bertone, C. J. Chiara, P. Chowdhury, H. M. David, A. N. Deacon, B. DiGiovine, A. Gade, C. R. Hoffman, F. G. Kondev, T. Lauritsen, C. J. Lister, E. A. McCutchan, D. S. Moerland, C. Nair, A. M. Rogers, and D. Seweryniak, Phys. Rev. C **91**, 044327 (2015)
16. **Identification of deformed intruder states in semi-magic  $^{70}\text{Ni}$**   
C. J. Chiara, D. Weisshaar, R. V. F. Janssens, Y. Tsunoda, T. Otsuka, J. L. Harker, W. B. Walters, F. Recchia, M. Albers, M. Alcorta, V. M. Bader, T. Baugher, D. Bazin, J. S. Berryman, P. F. Bertone, C. M. Campbell, M. P. Carpenter, J. Chen, H. L. Crawford, H. M. David, D. T. Doherty, A. Gade, C. R. Hoffman, M. Honma, F. G. Kondev, A. Korichi, C. Langer, N. Larson, T. Lauritsen, S. N. Liddick, E. Lunderberg, A. O. Macchiavelli, S. Noji, C. Prokop, A. M. Rogers, D. Seweryniak, N. Shimizu, S. R. Stroberg, S. Suchyta, Y. Utsuno, S. J. Williams, K. Wimmer, and S. Zhu, Phys. Rev. C **91**, 044309 (2015)
- 2014
17. **Fission Barrier of Superheavy Nuclei and Persistence of Shell Effects at High Spin: Cases of  $^{254}\text{No}$  and  $^{220}\text{Th}$**   
Greg Henning, T. L. Khoo, A. Lopez-Martens, D. Seweryniak, M. Alcorta, M. Asai, B. B. Back, P. F. Bertone, D. Boilley, M. P. Carpenter, C. J. Chiara, P. Chowdhury, B. Gall, P. T. Greenlees, G. Gürdal, K. Hauschild, A. Heinz, C. R. Hoffman, R. V. F. Janssens, A. V. Karpov, B. P. Kay, F. G. Kondev, S. Lakshmi, T. Lauritsen, C. J. Lister, E. A. McCutchan, C. Nair, J. Piot, D. Potterveld, P. Reiter, A. M. Rogers, N. Rowley, and S. Zhu, Phys. Rev. Lett. **113**, 262505 (2014)
18. **Stretched states in  $^{12,13}\text{B}$  with the  $(d,\alpha)$  reaction**  
A. H. Wuosmaa, J. P. Schiffer, S. Bedoor, M. Albers, M. Alcorta, S. Almaraz-Calderon, B. B. Back, P. F. Bertone, C. M. Deibel, C. R. Hoffman, J. C. Lighthall, S. T. Marley, R. C. Pardo, K. E. Rehm, and D. V. Shetty, Phys. Rev. C **90**, 061301(R) (2014)
19. **Multiple excitation modes in  $^{163}\text{Hf}$**   
R. B. Yadav, W. C. Ma, J. C. Marsh, Q. A. Ijaz, R. V. F. Janssens, M. P. Carpenter, C. R. Hoffman, T. Lauritsen, S. Zhu, F. G. Kondev, G. Gürdal, G. B. Hagemann, D. J. Hartley, L. L. Riedinger, and S. Mukhopadhyay, Phys. Rev. C **90**, 054325 (2014)
20.  **$N=151$  Pu, Cm, and Cf nuclei under rotational stress: Role of higher-order deformations**  
S. S. Hota, P. Chowdhury, T. L. Khoo, M. P. Carpenter, R. V. F. Janssens, Y. Qiu, I. Ahmad, J. P.

Greene, S. K. Tandel, D. Seweryniak, S. Zhu, P. F. Bertone, C. J. Chiara, A. Y. Deo, N. DÓlympia, S. Gros, C. J. Guess, T. Harrington, D. J. Hartley, G. Henning, C. R. Hoffman, E. G. Jackson, F. G. Kondev, S. Lakshmi, T. Lauritsen, C. J. Lister, E. A. McCutchan, K. Moran, C. Nair, D. Peterson, U. Shirwadkar, and I. Stefanescu, Phys. Lett. B **739**, 13 (2014)

21. **Neutron  $s$  states in loosely bound nuclei**  
C. R. Hoffman, B. P. Kay, J. P. Schiffer, Phys. Rev. C **89**, 061305(R) (2014)
22. **Direct measurement of the  $^{23}\text{Na}(\alpha,p)^{26}\text{Mg}$  reaction cross section at energies relevant for the production of galactic  $^{26}\text{Al}$**   
S. Almaraz-Calderon, P.F. Bertone, M. Alcorta, M. Albers, C.M. Deibel, C. R. Hoffman, C.L. Jiang, S.T. Marley, K.E. Rehm, and C. Ugalde, Phys. Rev. Lett. **112**, 152701 (2014)
23. **Nuclear Structure Towards  $N=40$   $^{60}\text{Ca}$ : In-Beam  $\gamma$ -ray Spectroscopy of  $^{58,60}\text{Ti}$**   
A. Gade, R. V. F. Janssens, D. Weisshaar, B. A. Brown, E. Lunderberg, M. Albers, M. V. Bader, T. Baugher, D. Bazin, J. S. Berryman, C. M. Campbell, M. P. Carpenter, C. J. Chiara, H. L. Crawford, M. Cromaz, U. Garg, C. R. Hoffman, F. G. Kondev, C. Langer, T. Lauritsen, I. Y. Lee, S. M. Lenzi, T. J. Matta, F. Nowacki, F. Recchia, K. Sieja, S. R. Stroberg, J. A. Tostevin, S. J. Williams, K. Wimmer, S. Zhu, Phys. Rev. Lett. **112**, 112503 (2014)
24. **Determining the  $^7\text{Li}(n,\gamma)$  cross section via Coulomb dissociation of  $^8\text{Li}$**   
R. Izsák, Á. Horváth, Á. Kiss, Z. Seres, A. Galonsky, C. A. Bertulani, Zs. Fülöp, T. Baumann, D. Bazin, K. Ieki, K. C. Bordeanu, N. Carlin, M. Csanád, F. Deák, P. DeYoung, N. Frank, T. Fukuchi, A. Gade, D. Galaviz, C. R. Hoffman, W. A. Peters, H. Schelin, M. Thoennessen, and G. I. Veres, Phys. Rev. C **88**, 065808 (2013)
25. **In-beam  $\gamma$ -ray spectroscopy of  $^{34,36,38}\text{Mg}$  – Merging the  $N=20$  and  $N=28$  shell quenching**  
P. Doornenbal, H. Scheit, S. Takeuchi, N. Aoi, K. Li, M. Matsushita, D. Steppenbeck, H. Wang, H. Baba, H. Crawford, C. R. Hoffman, R. Hughes, E. Ideguchi, N. Kobayashi, Y. Kondo, J. Lee, S. Michimasa, T. Motobayashi, H. Sakurai, M. Takechi, Y. Togano, R. Winkler, and K. Yoneda, Phys. Rev.Lett. **111**, 212502 (2013)
26. **Single-particle and collective excitations in  $^{63}\text{N}$**   
M. Albers, S. Zhu, R. V. F. Janssens, J. Gellanki, I. Ragnarsson, M. Alcorta, T. Baugher, P. F. Bertone, M. P. Carpenter, C. J. Chiara, P. Chowdhury, A. N. Deacon, A. Gade, B. DiGiovine, C. R. Hoffman, F. G. Kondev, T. Lauritsen, C. J. Lister, E. A. McCutchan, D. S. Moerland, C. Nair, A. M. Rogers, and D. Seweryniak, Phys. Rev. C **88**, 054314 (2013)
27. **Identification of triaxial strongly deformed bands in  $^{164}\text{Hf}$**   
J. C. Marsh, W. C. Ma, G. B. Hagemann, R. V. F. Janssens, R. Bengtsson, H. Ryde, M. P. Carpenter, G. Gürdal, D. J. Hartley, C. R. Hoffman, Q. A. Ijaz, F. G. Kondev, T. Lauritsen, S. Mukhopadhyay, L. L. Riedinger, R. B. Yadav, and S. Zhu, Phys. Rev. C **88**, 041306(R) (2013)
28. **Low-lying  $T=0$  states in the odd-odd  $N=Z$  nucleus  $^{62}\text{Ga}$**   
H. M. David, P. J. Woods, G. Lotay, D. Seweryniak, M. Albers, M. Alcorta, M. P. Carpenter, C. J. Chiara, T. Davinson, D. T. Doherty, C.R. Hoffman, R. V. F. Janssens, T. Lauritsen, A. M. Rogers, and S. Zhu, Phys. Lett. B **726**, 665 (2013)
29. **Configuration mixing and relative transition rates between low-spin states in  $^{68}\text{Ni}$**   
F. Recchia, C. J. Chiara, R. V. F. Janssens, D. Weisshaar, A. Gade, W. B. Walters, M. Albers, M. Alcorta, V. M. Bader, T. Baugher, D. Bazin, J. S. Berryman, P. F. Bertone, B. A. Brown, C. M. Campbell, M. P. Carpenter, J. Chen, H. L. Crawford, H. M. David, D. T. Doherty, C. R. Hoffman, F. G. Kondev, A. Korichi, C. Langer, N. Larson, T. Lauritsen, S. N. Liddick, E. Lunderberg, A.

O. Macchiavelli, S. Noji, C. Prokop, A. M. Rogers, D. Seweryniak, S. R. Stroberg, S. Suchyta, S. Williams, K. Wimmer, and S. Zhu, *Phys. Rev. C* **88**, 041302(R) (2013)

30. **Single-neutron excitations in  $^{18}\text{N}$**   
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)
31. **Quadrupole moments of coexisting collective shapes at high spin in  $^{154}\text{Er}$**   
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)
32. **Structure of  $^{14}\text{B}$  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)
33. **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)
34. **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)
35. **Yrast structure of  $^{206}\text{Bi}$ : 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)
36. **Neutron unbound states in  $^{28}\text{Ne}$  and  $^{25}\text{F}$**   
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)
37. **Well Developed Deformation in  $^{42}\text{Si}$**   
S. Takeuchi, M. Matsushita, N. Aoi, P. Doornenbal, K. Li, T. Motobayashi, H. Scheit, D. Steppenbeck, H. Wang, H. Baba, D. Bazin, L. Caceres, 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)
38. **Low-spin states and the non-observation of a proposed 2202-keV,  $0^+$  isomer in  $^{68}\text{Ni}$**   
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)

39. **Competing single-particle and collective behavior in  $^{71}\text{Se}$**   
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INVITED TALKS

2016 **Proton *sd* states**  
 Bormio, February 2016

2014 **A search for unexpected bound states in  $^{15}\text{B}$**   
 Joint APS-JPS Fall DNP Meeting, HI, October 2014

**Recent results from HELIOS**  
 CAARI, San Antonio, TX, May 2014

**Near threshold *s*-states**  
 EMMI, Nuclear at the threshold workshop, GSI, Darmstadt, Germany, February 2014

2013 **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 **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  $^{25}\text{O}$**   
 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  
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- CONTRIBUTED    **The role of  $s$ -States on the levels in light nuclei**  
 TALKS            C.R. Hoffman, APS DNP Fall Meeting, Santa Fe (2015)  
**Changes in the single-neutron shell spacing of light nuclei**  
C.R. Hoffman, B. P. Kay, and J. P. Schiffer, APS DNP Fall Meeting, Hawaii (2014)  
**Study of the  $^{19}\text{O}(d, p)$  reaction in inverse kinematics with HELIOS**  
C.R. Hoffman, APS DNP Fall Meeting, East Lansing (2011)  
**Digital Data Acquisition for Gammasphere**  
C.R. Hoffman, APS DNP Fall Meeting, East Lansing (2011)  
**Digital Data Acquisition for Gammasphere**  
C.R. Hoffman, J.T. Anderson, M.P. Carpenter, T.A. Hayden, R.V.F. Janssens, A. Kreps, T. Lau-  
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**Structure of  $T = 2$   $^{24}\text{Ne}$  from  $^{14}\text{C}$  on  $^{14}\text{C}$**   
 Frontiers of Nuclear Structure, Fall 2002, Berkeley, CA

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

Conference Experience for Undergraduates, APS Meeting, Fall 2001, Maui, HI

SEMINARS AND  
COLLOQUIA

Florida State University, Summer 2015

TRIUMF, Summer 2014

Argonne National Laboratory, Fall 2013

National Superconducting Cyclotron and Michigan State University, Fall 2013

Argonne National Laboratory, Spring 2012

Central Michigan University, Spring 2012

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Florida State University, Fall 2006

Florida State University, Spring 2003

ACTIVITIES

**ANL Seminar Co-Chair**

August 2016 - May 2017

**FRIB Users Organization Committee Member**

January 2016 - Present

**NSCL Operations Sub-Committee Member**

January 2016 - Present

**APS Division of Nuclear Physics Conference Organizing Committee Member**

January 2015 - January 2017

**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 2014 - August 2015

**Lecturer at Exotic Beam Summer School on Transfer Reactions**

Oak Ridge National Laboratory, July 2014

**ANL Physics Division Heavy-Ion Discussion Group Chair**

September 2013 - May 2014

**ANL Physics Division Colloquium Committee Member**

September 2010 - August 2011

**Participated in Japan-U.S. Institute for Physics with Exotic Nuclei (JUSTIPEN)**

RIKEN, Tokyo, Japan, October 2010

**Participated in Japan-U.S. Institute for Physics with Exotic Nuclei (JUSTIPEN)**

RIKEN, Tokyo, Japan, June 2007

**Attended The Fourth Rare Isotope Accelerator Summer School**

Lawrence Berkeley National Laboratory, Berkeley, CA, Summer 2005

**Attended The Third Rare Isotope Accelerator Summer School**

Argonne National Laboratory, Argonne, IL, Summer 2004