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Education and Training

- SUNY Stony Brook, Physics: Ph.D., 2002
- University of Cincinnati, Nuclear Engineering: B.S., 1996

Research and Professional Experience

- *Professor*, NSCL and Dept. of Physics & Astronomy, Michigan State University, 2017–
- *Associate Professor*, NSCL and Dept. of Physics & Astronomy, Michigan State University, 2012–2017
- *Assistant Professor*, NSCL and Dept. of Physics & Astronomy, Michigan State University, 2007–2012
- *Research Associate*, The Ohio State University, 2004–2007
- *Research Associate*, Institute for Nuclear Theory, University of Washington, 2002–2004

Selected Publications Relevant to this Proposal

1. S. R. Stroberg, A. Calci, H. Hergert, J. D. Holt, S. K. Bogner, R. Roth, and A. Schwenk, A Nucleus-Dependent Valence-Space Approach to Nuclear Structure, Phys. Rev. Lett. **118**, 032502 (2017).
2. H. Hergert, S. K. Bogner, T. D. Morris, A. Schwenk, K. Tsukiyama, The In-Medium Similarity Renormalization Group: A New Ab Initio Method for Nuclei, Phys. Rept. **621**, 165 (2016).
3. H. Hergert, S. K. Bogner, T. D. Morris, S. Binder, A. Calci, J. Langhammer, and R. Roth, Ab-Initio Multi-Reference In-Medium Similarity Renormalization Group Calculations of Calcium and Nickel Isotopes, Phys. Rev. C **90**, 041302(R) (2014).
4. S. König, S. K. Bogner, R. J. Furnstahl, S. N. More and T. Papenbrock, Ultraviolet extrapolations in finite oscillator bases Phys. Rev. C **90**, 064007 (2014).
5. S. R. Stroberg, H. Hergert, J. D. Holt, S. K. Bogner, A. Schwenk, Ground and Excited States of Doubly Open-Shell Nuclei From Ab Initio Valence-Space Hamiltonians, Phys. Rev. C **93**, 051301(R) (2016).
6. S. K. Bogner, H. Hergert, J. D. Holt, A. Schwenk, S. Binder, A. Calci, J. Langhammer, and R. Roth, Nonperturbative Shell-Model Interactions from the In-Medium Similarity Renormalization Group, Phys. Rev. Lett. **113**, 142501 (2014).
7. H. Hergert, S. K. Bogner, S. Binder, A. Calci, J. Langhammer, R. Roth, and A. Schwenk, In-Medium Similarity Renormalization Group with Chiral Two- Plus Three-Nucleon Interactions, Phys. Rev. C **87**, 034307 (2013).

Selected Synergistic Activities

- *Co-organizer:* ICNT program on "Theory for open-shell nuclei near the limits of stability", East Lansing, MI, May 11 - 29, 2015
- *Lecturer/Co-organizer:* TALENT summer school in "Nuclear Density Functional Theory and Self-Consistent Methods," 2014 ECT* Trento (Italy)(UK) www.nucleartalent.org/
- *Co-Organizer:* INT Program on "Computational and Theoretical Advances for Exotic Isotopes in the Medium Mass Region", Seattle, Washington, March 25 - April 19, 2013
- *Co-Organizer:* EMMI Program on "The Extreme Matter Physics of Nuclei: From Universal Properties to Neutron-Rich Extremes", Darmstadt, Germany, April 16 - May 11, 2012

Coauthors (48 months) and Co-editors (24 months)

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Knoxville/ORNL), T. Papenbrock (UT Knoxville/ORNL), N. Parzuchowski (NSCL/FRIB), R. Roth (TU Darmstadt), A. Schwenk (TU Darmstadt), O. Sorlin (GANIL), S. R. Stroberg (TRIUMF), K. Tsukiyama (Millennium Capital Management Asia Ltd.)

Advisors

- R. J. Furnstahl (OSU, Postdoctoral)
- W. Haxton (INT/UW, Postdoctoral)
- T. T. S. Kuo (Stony Brook, Doctoral)

Graduate/Postdoctoral Advisees

- Graduate students: N. Parzuchowski (Ph.D. 2017) T. Morris (Ph.D. 2016))
- Postdocs: H. Hergert(NSCL/FRIB) S. More (NSCL/FRIB)