Eleanor M. Clements

Neutron Scattering Division ◈ Oak Ridge National Laboratory ◈ Oak Ridge, TN USA
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EDUCATION

Ph. D. in Applied Physics, 2019
University of South Florida
Thesis title: "Phase evolution and dynamic behavior in materials with noncollinear spin textures"

M. S. in Physics, 2015
University of South Florida

B. A. in Chemistry, Minor: Mathematics, 2009
University of Tampa

EXPERIENCE

2023 – present **Neutron Scattering Scientist**, ORNL, Neutron Scattering Division, HFIR, Oak Ridge, TN

2022 – 2023 **Postdoctoral Researcher**, ORNL, Materials Science & Technology Division, Oak Ridge, TN

2020 – 2022 **NIST Director's Postdoctoral Fellow**, NIST Center for Neutron Research, Gaithersburg, MD

2014 – 2019 **U.S. Department of the Navy Pathways Intern**, Naval Research Laboratory, Washington D.C.

2012 – 2020 **Research Associate**, University of South Florida, Department of Physics, Tampa, FL

2010 – 2011 **Field & Laboratory Researcher**, University of Florida, Institute of Food & Agricultural Sciences, Wimauma, FL

2009 – 2010 **Postgraduate Researcher**, University of Tampa, Department of Chemistry & Physics, Tampa, FL

PUBLICATIONS

23. F. Z. Yang, H. D. Zhang, S. Mandal, F. Y. Meng, G. Fabbris, A. Said, P. M. Lozano, A. Rajapitamahuni, E. Vescovo, C. Nelson, S. Lin, Y. Park, **E. M. Clements**, T. Z. Ward, H-N Lee, H. C. Lei, C. X. Liu, and H. Miao, *Orbital Driven Finite Momentum Pairing in a 3D Ising Superconductor*, **arXiv:2407.10352v2**.

22. Y. Gao, S. Lei, **E. M. Clements**, Y. Zhang, X. J. Gao, S. Chi, K. T. Law, M. Yi, J. W. Lynn, and E. Morosan, *Anomalous Hall effect emerging from field-induced Weyl nodes in SmAlSi*, **Physical Review Materials 9,** L061201 (2025).

21. **E. M. Clements**, D. Ovchinnikov, P. R. Raghuvanshi, V. R. Cooper, S. Okamoto, A. D. Christianson, J. A. M. Paddison, B. R. Ortiz, S. Calder, A. F. May, X. Xu, J. Yan, and M. A. McGuire, *$MnRhBi_3$: A Cleavable Antiferromagnetic Metal*, **Chemistry of Materials 36** (22), 11306-11316 (2024).

20. A. F. May, **E. M. Clements**, X. Wang, H. Zhang, B. R. Ortiz, *Crystal growth and evolution of magnetism in the EuCuP-EuCuAs solid solution*, **Physical Review Materials 8**, 084410 (2024).

19. N. Schulz, G. Pantano, D. DeTellem, A. Chanda, **E. M. Clements**, M. McGuire, A. Markou, C. Felser, D. A. Arena, J. Gayles, M. H. Phan, and H. Srikanth, *Unraveling the structural dependency of Weyl nodes in Co_2MnGa*, **Physical Review B 110**, 054419 (2024).

18. B. R. Ortiz, H. Miao, D. Parker, F. Yang, G. Samolyuk, **E. M. Clements**, A. Rajapitamahuni, T. Yilmaz, E. Vescovo, J. Yan A. F. May, and M. A. McGuire, *Evolution of highly anisotropic magnetism in the titanium-based kagome metals $LnTi_3Bi_4$ (Ln: La...Gd $^{3+}$, Eu $^{2+}$, Yb $^{2+}$)* **Chemistry of Materials 35**, 9756–9773 (2023).

17. A. F. May, **E. M. Clements**, H. Zhang, R. P. Hermann, J. Yan, and M. A. McGuire, *Coupling of magnetism, crystal lattice, and transport in EuCuP and EuCuAs*, **Physical Review Materials 7** (6), 064406 (2023).

16. M. A. McGuire, **E. M. Clements**, Q. Zhang, S. Okamoto, J. Yan, *Double-layer kagome metals Pt_3Tl_2 and Pt_3In_2*, **Crystals 13** (5), 833 (2023).

15. J. M. Moya, S. Lei, **E. M. Clements**, K. Allen, Q. Li, Y. Y. Peng, M. J. Krogstad, R. Osborn, D. S. Robinson, S. Sun, P. Abbamonte, S. Chi, A. B. Puthirath, J. W. Lynn and E. Morosan, *Incommensurate magnetic orders and possible field-induced skyrmions in centrosymmetric $EuGa_2Al_2$*, **Physical Review Materials 6**, 074201 (2022).

14. H. L. Liu, **E. M. Clements**, L. Li, Z Romestan, S. Bhat, V. Mapara, A. Barua, M. T. Trinh, M. H. Phan, D. Arena, H. Srikanth, D. Mandrus, A. Romero and D. Karaiskaj, *Elastically induced magnetization at ultrafast time scales in a chiral helimagnet*, **Physical Review B 106**, 035103 (2022).

13. C. M. Hung, R. P. Madhogaria, B. Muchharla, **E. M. Clements**, A. T. Duong, R. Das, P. T. Huy, S. L. Cho, S. Witanachchi, H. Srikanth, and M. H. Phan, *MnP nanorod films with desired magnetic, magnetocaloric and thermoelectric properties for energy-efficient refrigeration*, **physica status solidi (a) 219** (3), 2100367 (2022).

12. **E. M. Clements**, R. Das, G. Pokharel, D. Mandrus, M. Osofsky, H. Srikanth, and M. H. Phan, *Robust cycloid crossover and dissipation effects in the phase diagram of GaV_4S_8*, **Physical Review B 101,** 094425 (2020). (***Editors' Suggestion***)

11. R. Madhogaria, **E. M. Clements**, R. Das, V. Kalappattil, M. H. Phan, and H. Srikanth, *Metamagnetism and kinetic arrest in a long-range ferromagnetically ordered multicaloric double perovskite Y_2CoMnO_6*, **Journal of Magnetism and Magnetic Materials 507**, 166821 (2020).

10. P. Kelley, **E. M. Clements**, J. Marcin, I. Skorvanek, H. T. Yi, S. W. Cheong, M. H. Phan, and H. Srikanth, *Impact of reduced dimensionality on the correlation length and magnetization dynamics of the spin chain cobaltite $Ca_3Co_2O_6$*, **Journal of Magnetism and Magnetic Materials 493,** 165690 (2020).

9. R. Madhogaria, R. Das, **E. M. Clements**, V. Kalappattil, N. Dang, D. Kozlenko, N. Bingham, M. H. Phan, and H. Srikanth, *Evidence of long-range ferromagnetic order and spin frustration effects in the double perovskite La_2CoMnO_6*, **Physical Review B 99**, 104436 (2019).

8. R. Madhogaria, R. Das, **E. M. Clements**, V. Kalappattil, N. Bingham, M. H. Phan, and H. Srikanth, *Effect of antiphase boundaries on the magnetic properties of La_2CoMnO_6*, **AIP Advances 9,** 035142 (2019).

7. N. T. M. Duc, H. X. Shen, **E. M. Clements**, O. Thiabgoh, J. L. Sanchez Llamazares, C. F. Sanchez-Valdes, N. T. Huong, J. F. Sun, H. Srikanth, and M. H. Phan, *Enhanced refrigerant capacity in melt-extracted amorphous $Gd_{60}Fe_{20}Al_{20}$ microwires with high Curie temperature*, **Journal of Alloys and Compounds 807**, 151694 (2019).

6. N. T. M. Duc, H. X. Shen, **E. M. Clements**, O. Thiabgoh, J. L. Sanchez Llamazares, C. F. Sanchez-Valdes, N. T. Huong, J. F. Sun, H. Srikanth, and M. H. Phan, *Critical magnetic and magnetocaloric behavior of amorphous melt-extracted* $Gd_{50}(Co_{69.25}Fe_{4.25}Si_{13}B_{13.5})_{50}$ *microwires*, **Intermetallics 110**, 106479 (2019).

5. **E. M. Clements**, R. Das, M. H. Phan, L. Li, V. Keppens, D. Mandrus, M. Osofsky, and H. Srikanth, *Magnetic field dependence of the nonlinear magnetic response and tricritical point in the monoaxial chiral helimagnet* $Cr_{1/3}NbS_2$, **Physical Review B 97**, 214438 (2018).

4. P. Tho, **E. M. Clements**, D. H. Kim, N. Tran, M. S. Osofsky, M. H. Phan, T. L. Phan, and B. W. Lee, *Crystal structure and magnetic properties of Ti-doped* $Bi_{0.84}La_{0.16}FeO_3$ *polycrystalline ceramics*, **Journal of Alloys and Compounds 741**, 59 (2018).

3. D. Kozlenko, N. Dang, N. Golosova, S. Kichanov, E. Lukin, P. Kelley, **E. M. Clements**, K. Glazyrin, S. Jabarov, T. L. Phan, B. Savenko, H. Srikanth, and M. H. Phan, *Pressure-induced modifications of the magnetic order in the spin chain compound* $Ca_3Co_2O_6$, **Physical Review B 98**, 134435 (2018).

2. **E. M. Clements**, R. Das, L. Li, P. Kelley, M. H. Phan, V. Keppens, D. Mandrus, and H. Srikanth, *Critical behavior and macroscopic phase diagram of the monoaxial chiral helimagnet* $Cr_{1/3}NbS_2$, **Scientific Reports 7**, 6545 (2017).

1. Z. Nemati, R. Das, J. Alonso Masa, **E. M. Clements**, M. H. Phan, and H. Srikanth, *Iron oxide nanospheres and nanocubes for hyperthermia therapy: A comparative study*, **Journal of Electronic Materials 46**, 3764 (2017).

AWARDS & ACHIEVEMENTS

Best Poster Award, SNS and HFIR Neutron Sciences User Meeting, Oak Ridge National Lab, TN 2023

NIST Director's Postdoctoral Fellowship, National Institute of Standards and Technology, Gaithersburg, MD, 2020 – 2022

Editors' Suggestion, "Robust cycloid crossover and dissipation effects in the phase diagram of GaV_4S_8," E. M. Clements, et al. Physical Review B **101,** 094425 (2020)

Research Fellowship, Frank E. Duckwall Foundation, University of South Florida, May – August 2018

ICM Travel Grant, 21st International Conference on Magnetism, San Francisco, CA, 2018

GMAG Travel Award, American Physical Society March Meeting, Los Angeles, CA, 2018

IEEE Magnetics Society Summer School Travel Award, Santander, Spain 2017

US DON Pathways Program Physics Internship, Department of Defense, Naval Research Laboratory, Washington, D.C., 2014 – 2019

INVITED TALKS & SEMINARS

1. "Phase evolution in crystalline magnets hosting topological spin textures"
   -*Materials Science & Technology Division*, **Oak Ridge National Lab**, TN USA, November 14, 2019.
   -*Department of Materials Science & Engineering*, **University of Tennessee**, Knoxville, TN USA, November 13, 2019. (**Invited**)

2. "Magnetic phase evolution of topologically nontrivial spin states in single crystal materials," ***Hot Topic Seminar for Condensed Matter Sciences***, **National High Magnetic Field Laboratory**, Tallahassee, FL USA, June 25, 2019. (**Invited**)

3. "Magnetic structure evolution and phase transitions in materials with noncollinear spin textures," *NIST Center for Neutron Research*, **National Institute of Standards and Technology**, Gaithersburg, MD USA, April 24, 2019. (**Invited**)

4. "Magnetocaloric effect as a probe of the phase evolution of noncollinear spin textures: An analysis of $Cr_{1/3}NbS_2$," *Special Seminar for the Department of Materials Science & Metallurgy*, **University of Cambridge**, England, UK, Sept. 12, 2018. (**Seminar**)

5. "An overview of the Functional Materials Laboratory at the University of South Florida: A fundamental approach to developing functional magnetic materials," *Special Seminar for the Materials Science & Technology Division*, **Naval Research Laboratory**, Washington, D.C. USA, July 9, 2014. (**Seminar**)

RESEARCH SYNOPSIS

Technical Skills:

Neutron scattering:

- Neutron triple-axis spectroscopy, including elastic, diffuse, and inelastic scattering techniques
  - Low temperature, Magnetic field, and Polarization experiments
- Neutron powder diffraction
- Neutron data analysis and magnetic and crystal structure refinement:
  - FullProf, Jana, GSAS II, SARAh, DAVE, ResLib, Mantid
- Instrument Experience:
  - BT-7, MACS (NCNR); HB-3, HB-2A, HB-1A, GP-SANS (HFIR); CNCS, TOPAZ, POWGEN, ARCS (SNS); TRIAX (MURR)

Computational: MATLAB, Fortran 90, Python, Mathematica, LabVIEW

Laboratory characterization:

- X-ray diffraction on powders and thin films
- AC and DC magnetometry, thermodynamic characterization, and electronic and thermal transport with Quantum Design PPMS and MPMS instrument options and custom probes: AC measurement system, nonlinear ac magnetic response, radio-frequency transverse susceptibility, vibrating sample magnetometer, heat capacity, dilatometry, Raman, heat capacity, resistivity

Synthesis:

- Materials synthesis and single-crystal growth: flux, chemical vapor transport, arc melting, spark plasma sintering, high-pressure vapor phase method, floating zone
- General organic and inorganic wet chemical laboratory skills
- Thin film growth via pulsed laser deposition (PLD)

Research Interests:

Magnetic textures, quantum phenomena, microscopic mechanisms of phase transformations, coupled and multicomponent order parameters, intrinsic bulk properties, spin dynamics, out-of-equilibrium and nonlinear processes, topologically nontrivial states of matter.

TRAINING WORKSHOPS & SCHOOLS

Getting the most from your POWGEN data, Oak Ridge National Lab, Nov. 15 – 17, 2023.

Introduction to Computational Approaches in Materials Science, University of Tennessee, Knoxville, May 26, 2023.

Magnetic structure determination with GSAS-II, Oak Ridge National Lab, June 5, 2023.

Polarized Neutron Diffraction and Spectroscopy: Applications to Quantum Materials, Oak Ridge National Lab, September 26 – 29, 2022.

Modern approaches to numerical spin-wave calculations with SU(N)NY workshop (2022), Oak Ridge National Lab, September 8 – 9, 2022.

Neutrons and Complementary Techniques for Quantum Materials, Oak Ridge National Lab, Online, September 6 – 8, 2022.

Representational Analysis and Magnetic Structures School, *RAMS 2021*, University of Maryland, College Park, Online, November 8 – 12, 2021

Advanced Software Tools for Single Crystal Data Analysis, *satellite workshop of the 2021 Joint Nanoscience and Neutron Scattering User Meeting*, Oak Ridge National Lab, Online, August 2-3, 2021

Fundamentals of Quantum Materials Winter School on single-crystal synthesis methods, *FQM 2020*, University of Maryland, College Park, January 6 – 9, 2020

Computational Micromagnetics with JOOMMF, *21st International Conference on Magnetism*, San Francisco, CA, USA, July 15, 2018

IEEE Magnetics Society Summer School, Universidad International Menendez Pelayo (UIMP), Santander, Spain, June 19 – 23 2017

Magnetic Structure Determination from Neutron Diffraction Data Workshop, *MAGSTR 2016***,** Oak Ridge National Lab and Florida State University, Tallahassee, FL, May 23 – 26, 2016

Tutorial: Density Functional Theory, *American Physical Society March Meeting 2016*, Baltimore, MD, USA, March 13, 2016

International Max Planck Summer School *Superconductivity and Magnetism at the Nanoscale*, Max Planck Institute for Solid State Research, Stuttgart, Germany, June 30 – July 3, 2014

CONFERENCE PRESENTATIONS

27. **E. M. Clements**, A. Christianson, M. McGuire, A. May, J. Yan, "Magnetic properties of the cleavable metallic antiferromagnet $MnRhBi_3$," *American Physical Society March Meeting*, Minneapolis, MN, March 4 – 8, 2024. (Oral).

26. J. W. Lynn, **E. M. Clements**, S. Chi, Y. Gao, E. Morosan, "Magnetic Order and Phase Transition in a Centrosymmetric Rare Earth Topological System," *American Physical Society March Meeting*, Minneapolis, MN, March 4 – 8, 2024. (Oral).

25. Y. Gao, **E. M. Clements**, S. Chi, S. Lei, J. W. Lynn, "Possible topological Hall effect in a binary Nd intermetallic compound," *American Physical Society March Meeting*, Minneapolis, MN, March 4 – 8, 2024. (Oral).

24. D. Strong, A. May, R. Cava, H. Cao, Y. Hao, **E. M. Clements**, "Magnetic Structure and Anisotropy of EuBi2," *American Physical Society March Meeting*, Minneapolis, MN, March 4 – 8, 2024. (Oral).

23. B. Ortiz, H. Miao, D. Parker, F. Yang, G. Samolyuk, **E. M. Clements**, A. Rajapitamahuni, T. Yilmaz, E. Vescovo, J. Yan, A. May, M. McGuire, "Unearthing new kagome materials; the evolution of highly anisotropic magnetism in $LnTi_3Bi_4$ kagome metals," *American Physical Society March Meeting*, Minneapolis, MN, March 4 – 8, 2024. (Oral).

22. **E. M. Clements**, P. Siegfried, A. Balk, H. Bhandari, J. Freeland, S. Crooker, F. Rönning, L. Poudel1, J. F. Mitchell, I. I. Mazin, H. B. Cao, J. Lynn, N. J. Ghimire, "Intriguing magnetism in the chiral lattice antiferromagnet $CoNb_3S_6$", *2023 SNS and HFIR Neutron Sciences Users Meeting*, Oak Ridge National Lab, June 5 – 8, 2023 (**Best Poster Award**).

21. **E. M. Clements**, H. Zhang, A. F. May, and M. A. McGuire, "Magnetothermal Transport in the Kagome van der Waals compound $Pd_3P_2S_8$", *2023 Oak Ridge Postdoctoral Association Research Symposium*, Oak Ridge National Lab, June 5 – 8, 2023 (Poster).

20. **E. M. Clements**, P. Siegfried, A. Balk, H. Bhandari, J. Freeland, S. Crooker, F. Rönning, L. Poudel1, J. F. Mitchell, I. I. Mazin, H. B. Cao, J. Lynn, N. J. Ghimire, "High resolution magnetic neutron diffraction study of the chiral lattice antiferromagnet $CoNb_3S_6$", *American Physical Society March Meeting*, Las Vegas, NV, March 6 – 10, 2023 (Oral).

19. A. May, M. McGuire, J. Yan, H. Miao, **E. M. Clements**, R. Hermann, "Exploring the behavior of EuCuP and EuCuAs," *American Physical Society March Meeting*, Las Vegas, NV, March 6 – 10, 2023 (Oral).

18. **E. M. Clements**, P. Rosa, Z. Fisk, J. W. Lynn, "Neutron scattering investigation of the spin density wave ground state in $CeAuSb_2$," *American Physical Society March Meeting*, Chicago, IL, March 14 – 18, 2022. (Oral).

17. P. Saraf, **E. M. Clements**, D. S. Sokratov, C. Eckberg, D. Campbell, T. Heitman, J. W. Lynn, P. Zavalij, and J. Paglione, "Evolution of Charge Order in $Ba_{1-x}Sr_xAl_4$," *American Physical Society March Meeting*, Chicago, IL, March 14 – 18, 2022. (Oral).

16. **E. M. Clements**, J. W. Lynn, S. Chi, J. Moya, S. Lei, K. Allen, E. Morosan, "Neutron diffraction study of incommensurate magnetism in square-lattice magnet $EuGa_2Al_2$," *2022 Joint MMM – Intermag Conference*, New Orleans, LA, January 11, 2022. (Poster)

15. **E. M. Clements**, H. Hodovanets, J. W. Lynn, D. Kraft, J. Higgins, H. Kim, J. Paglione, "Neutron diffraction study of magnetic Weyl semimetal candidate PrAlSi," *28th Annual NIST Sigma Xi Postdoctoral Poster Presentation*, Gaithersburg, MD, March 31, 2021. (Poster)

14. M. M. Piva, **E. M. Clements**, R. T. Souza, G. S. Freitas, J. C. Souza, D. Christovam, S. Thomas, J. B. Leão, W. Ratcliff, J. W. Lynn, J. Thompson, P. F. S. Rosa, C. Adriano, E. Granado, P. G. Pagliuso, "Searching non-trivial topological phases in nonsymmorphic $CeAuBi_2$," *American Physical Society March Meeting*, Denver, CO, March 15 – 19, 2021. (Oral).

13. **E. M. Clements**, R. Das, G. Pokharel, L. Li, D. Mandrus, M. Osofsky, H. Srikanth, M. H. Phan, "Robust magnetization dynamics and magnetocaloric anomalies across the phase diagrams of noncollinear magnets," *American Physical Society March Meeting*, Denver, CO, March 2 – 6, 2020. (Cancelled)

12. **E. M. Clements**, R. Das, G. Pokharel, D. Mandrus, M. Osofsky, M. H. Phan, H. Srikanth, "Investigating the stability of incommensurate spin textures in GaV_4S_8," *American Physical Society March Meeting*, Boston, MA, March 4 – 8, 2019. (Oral)

11. **E. M. Clements**, R. Das, G. Pokharel, D. Mandrus, M. Osofsky, M. H. Phan, H. Srikanth, "Influence of the multidomain structure on the nonlinear ac magnetic response in the Néel skyrmion lattice host GaV_4S_8," *14th Joint MMM – Intermag Conference*, Washington, D.C., Jan. 14 – 18, 2019. (Oral)

10. **E. M. Clements**, R. Das, L. Li, V. Keppens, D. Mandrus, M. Osofsky, H. Srikanth, M. H. Phan, "Phase evolution of noncollinear spin textures in $Cr_{1/3}NbS_2$," *14th Joint MMM – Intermag Conference*, Washington, D.C., Jan. 14 – 18, 2019. (Poster)

9. **E. M. Clements**, R. Das, G. Pokharel, D. Mandrus, M. Osofsky, H. Srikanth, M. H. Phan, "Relaxation mechanisms in the Néel skyrmion lattice host GaV_4S_8 probed by ac magnetic response," *21st International Conference on Magnetism*, San Francisco, CA, July 15 – 20, 2018. (Poster)

8. **E. M. Clements**, R. Das, G. Pokharel, D. Mandrus, M. Osofsky, H. Srikanth, M. H. Phan, "First-order magnetic transitions and metastability in the Néel skyrmion lattice host GaV_4S_8," *American Physical Society March Meeting*, Los Angeles, CA, March 5 – 9, 2018. (Oral)

7. R. Madhogaria, R. Das, **E. M. Clements**, M. H. Phan, H. Srikanth "Evidence of a new magnetic anomaly below the ferromagnetic Curie temperature in highly ordered La_2CoMnO_6," *American Physical Society March Meeting*, Los Angeles, CA, March 5 – 9, 2018. (Oral)

6. **E. M. Clements**, R. Das, L. Li, P. Lampen-Kelley, M. H. Phan, V. Keppens, D. Mandrus, H. Srikanth, "Nonlinear magnetic response and relaxation phenomena of the chiral soliton lattice in $Cr_{1/3}NbS_2$," *62nd Annual Conference on Magnetism and Magnetic Materials*, Pittsburgh, PA, Nov. 6 – 10, 2017. (Oral)

5. **E. M. Clements**, R. Das, M. H. Phan, H. Srikanth, "Magnetic Relaxation Phenomena and Nonlinear Response in the Chiral Helimagnet $Cr_{1/3}NbS_2$," *IEEE Magnetics Society Summer School,* Santander, Spain, June 24 – 30, 2017. (Poster)

4. **E. M. Clements**, R. Das, L. Li, P. Lampen-Kelley, M. H. Phan, V. Keppens, D. Mandrus, H. Srikanth, "Macroscopic phase diagram of the chiral helimagnet $Cr_{1/3}NbS_2$," *61st Annual Conference on Magnetism and Magnetic Materials*, New Orleans, LA, Oct. 31 – Nov. 4, 2016. (Oral)

3. **E. M. Clements**, R. Das, L. Li, P. Lampen-Kelley, M. H. Phan, V. Keppens, D. Mandrus, H. Srikanth, "Modulated magnetic ground state and complex phase diagram in the chiral helimagnet $Cr_{1/3}NbS_2$," *American Physical Society March Meeting*, Baltimore, MD, March 14 – 18, 2016. (Oral)

2. **E. M. Clements**, M. S. Osofsky, C. Krowne, R. Soulen, G. Woods, I. Takeuchi, H. Srikanth, "Superconductivity Near the Metal/Insulator Transition," *11th International Conference on Materials & Mechanisms of Superconductivity*, Geneva, Switzerland, Aug. 23 – 28, 2015. (Poster)

1. V. Kalappattil, J. Devkota, **E. M. Clements**, S. Chandra, J. S. Liu, H. X. Shen, J. F. Sun, H. Srikanth, M. H. Phan, "Effect of annealing on the surface magnetic and magnetoimpedance properties of Co-based amorphous microwires," *American Physical Society March Meeting*, San Antonio, TX, March 2 – 6, 2015. (Oral)

PROFESSIONAL ACTIVITIES

GMAG Executive Committee Member-At-Large, American Physical Society, March 2024 – present

GMAG Session Chair: Quantum Spin Liquids and Chiral Spin Textures and Dynamics, American Physical Society March Virtual Meeting, Las Vegas, NV, March 20 – 22, 2023

GMAG Session Chair: Quantum Phenomena and Sensing in Ordered Magnets, American Physical Society March Meeting, Las Vegas, NV, March 5 – 10, 2023

Visiting Researcher, Institute of Physics, University of Augsburg, Germany, October 2018

Visiting Researcher, Department of Materials Science & Metallurgy, University of Cambridge, England, September 2018

Reviewer, Applied Physics Letters, Physical Review B, Scientific Reports, Journal of Applied Physics, AIP Advances, Journal of Electronic Materials, Journal of Science: Advanced Materials and Devices, 2018 – present

DCMP Session Chair: Superconductor-Insulator Transitions, American Physical Society March Meeting, Baltimore, MD, March 14 – 18, 2016

Abstract Sorting Volunteer: American Physical Society March Sorters Meeting, American Center for Physics, College Park, MD, December 10, 2015

LEADERSHIP ACTIVITIES

Lead Coordinator, APS Local Links Luncheon with the Experts, EMN Fall Meeting, Orlando, FL, November 23, 2014

Volunteer Organizer, EMN Fall Meeting, Orlando, FL, November 22 – 25, 2014

GERA–FIAP Liaison, APS Topical Group on Energy Research & Applications, 2014 – 2015

Local Coordinator, Tampa Bay American Physical Society Local Links, 2014 – 2016

Officer, Physics Graduate Student Committee, University of South Florida, 2014 – present

Mentor, American Physical Society Bridge Program, University of South Florida, 2013 – 2015

Lead Coordinator, IDEA Conference: Focus on Sustainable Energy, Tampa, FL, October 14, 2013

Founder/President, IDEA: InterDisciplinary Exchange in Action, Univ. of South Florida, 2013 – 2015

TEACHING EXPERIENCE

Graduate Teaching Associate/Instructor, 2012 – 2017
Department of Physics, University of South Florida

- Mathematical Methods in Physics Recitation
- Electricity and Magnetism II Recitation
- Intermediate and Advanced Physics Laboratories
- General Physics I & II Laboratory and Problem-Solving Courses

ACADEMIC & PROFESSIONAL MEMBERSHIPS

IEEE Magnetics Society, 2016 – present

American Physical Society (GMAG, DMP, DCMP, FIP), 2012 – present

American Crystallographic Association, 2021 – present

PROFESSIONAL REFERENCES

1. Jeffrey Lynn, Ph. D., NIST Fellow and Team Leader for Condensed Matter Physics, NIST Center for Neutron Research, National Institute of Standards and Technology, Gaithersburg, MD USA
   Email: jeffrey.lynn@nist.gov, Phone: +1.301.975.6246

2. Michael Osofsky, Ph. D., Research Physicist and Section Head for Materials Physics and Chemistry, Naval Research Laboratory, Washington, D.C. USA
   Email: michael.osofsky@nrl.navy.mil, Phone: +1.202.767.6149

3. Manh-Huong Phan, Ph. D., Research Professor, Department of Physics, University of South Florida, Tampa, FL USA
   Email: phanm@usf.edu, Phone: +1.813.974.4322

4. Hariharan Srikanth, Ph. D., Distinguished Professor, Department of Physics, University of South Florida, Tampa, FL USA
   Email: sharihar@usf.edu, Phone: +1.813.974.2467