

PROFESSIONAL ACTIVITIES

Sub-topic program co-chair for International Conference on Magnetism 2018
 Co-organizer for workshop on “New Frontiers of Strongly Correlated Electron Materials” at KITS (Kavli Institute for Theoretical Sciences, Chinese Academy of Sciences) in August 2018
 Molecular and Materials Science Experimental Evaluation Committee at TRIUMF June 2019 - June 2022
 Member of the Programme Committee for SCES 2022 (Amsterdam)
 Co-organizer of the "Young investigators online workshop on Topology and Superconductivity in Strongly Correlated f-electron Materials (Feb 2023)

EDITORIAL ACTIVITIES

Referee for Physical Review Letters, Physical Review B, Physical Review X, New Journal of Physics, Nature Communications, npj Quantum Materials, SciPost Physics, Physica A, Reviews of Modern Physics, and Science.
 Grant proposal referee for DOE, NSF (write in and panel) and US-Israel Binational Science Foundation
 Reviewer for two FWP's for LANL's Fall 2022 triennial review

CITATIONS (FROM WEB OF KNOWLEDGE)

2008 – 1, 2009 – 10, 2010 – 14, 2011 – 19, 2012 – 30, 2013 – 32, 2014 – 66, 2015 – 61, 2016 – 55, 2017 – 76, 2018 – 88, 2019 – 71, 2020 - 89, 2021 - 73, 2022 – 38, 2023 – 69, 2024 - 45 (Total in lifetime: 837, h-index: 15)

REFEREED PUBLICATIONS IN PRINT

1. Rebecca Flint, M. Dzero and P. Coleman, *Heavy Electrons and the symplectic symmetry of spin*, Nature Physics **4**, 643 (2008).
2. Rebecca Flint and P. Coleman, *Symplectic N and time reversal in frustrated magnetism*, Phys. Rev. **B 79**, 014424 (2009).
3. R. Flint, H.-T. Yi, P. Chandra, S.-W. Cheong and V. Kiryukhin, *Spin-state crossover in multiferroic $\text{Ca}_3\text{CoMnO}_3$* , Phys. Rev. **B 81**, 092402 (2010).
4. Rebecca Flint and Piers Coleman, *Tandem Pairing in Heavy Fermion Superconductors*, Phys. Rev. Lett. **105**, 246404 (2010).
5. Rebecca Flint, Andriy Nevidomskyy and Piers Coleman, *Composite pairing in a mixed valent two channel Anderson model*, Phys. Rev. **B 84**, 064514 (2011)
6. Rebecca Flint and Piers Coleman, *Symplectic- N t - J model and s_{\pm} superconductors*, Phys. Rev. **B 86**, 184508 (2012)
7. Rebecca Flint, Premala Chandra and Piers Coleman, *Basal Plane Nonlinear Susceptibility: A Direct Probe of the Single-Ion Physics in URu_2Si_2* , Phys. Rev. **B 86**, 155155 (2012).
8. Premala Chandra, Piers Coleman and Rebecca Flint, *Hastatic order in URu_2Si_2* , Nature **493**, 621 (2013).

9. Rebecca Flint and T. Senthil, *Chiral RKKY interaction in $Pr_2Ir_2O_7$* , Phys. Rev. **B 87**, 125147 (2013).
10. Rebecca Flint and Patrick A. Lee, *Emergent honeycomb lattice in $LiZn_2Mo_3O_8$* , Phys. Rev. Lett. **111**, 217201 (2013).
11. Rebecca Flint, Premala Chandra and Piers Coleman, *Hidden and Hysteric Orders in URu_2Si_2* , J. Phys. Soc. Jpn. **83**, 061003 (2014).
12. Rebecca Flint and Piers Coleman, *Spins, electrons and broken symmetries: Realizations of two-channel Kondo physics*, Comptes Rendus Physiques **15**, 557 (2014).
13. Premala Chandra, Piers Coleman and Rebecca Flint, *Ising Quasiparticles and Hidden Order in URu_2Si_2* , Philosophical Magazine **94**, 3803 (2014).
14. Hyunsoo Kim, M. A. Tanatar, R. Flint, C. Petrovic, Rongwei Hu, B. D. White, I. K. Lum, M. B. Maple and R. Prozorov, *Nodal to nodeless superconducting energy-gap structure change concomitant with Fermi-surface reconstruction in the heavy-fermion compound $CeCoIn_5$* , Phys. Rev. Lett. **114**, 027003 (2015).
15. Onur Erten, Rebecca Flint and Piers Coleman, *Molecular Pairing and Fully-Gapped Superconductivity in Yb doped $CeCoIn_5$* , Phys. Rev. Lett. **114**, 027002 (2015).
16. Daixiang Mou, Rui Jiang, Valentin Taufour, Rebecca Flint, S. L. Bud'ko, P. C. Canfield, J. S. Wen, Z. J. Xu, Genda Gu, and Adam Kaminski, *Strong interaction between electrons and collective excitations in the multiband superconductor MgB_2* , Phys. Rev. B **91**, 140502(R) (2015).
17. Premala Chandra, Piers Coleman, and Rebecca Flint, *Hysteric order in URu_2Si_2 : hybridization with a twist*, Phys. Rev. B **91**, 205103 (2015).
18. H. Hodovanets, S. L. Bud'ko, W. E. Straszheim, V. Taufour, E. D. Mun, H. Kim, R. Flint, and P. C. Canfield, *Remarkably Robust and Correlated Coherence and Antiferromagnetism in $(Ce_{1-x}La_x)Cu_2Ge_2$* , Phys. Rev. Lett. **114**, 236601 (2015).
19. L. Zhao, D. H. Torchinsky, H. Chu, V. Ivanov, R. Lifshitz, R. Flint, T. Qi, G. Cao & D. Hsieh, *Evidence of an odd-parity hidden order in a strongly spin-orbit coupled correlated iridate*, Nature Physics **12**, 32-36 (2016).
20. Daixiang Mou, Aashish Sapkota, H.-H. Kung, Viktor Krapivin, Yun Wu, A. Kreyssig, Xingjiang Zhou, A. I. Goldman, G. Blumberg, Rebecca Flint, and Adam Kaminski, *Discovery of an unconventional charge density wave at the surface of $K0.9Mo_6O17$* Phys. Rev. Lett. **116**, 196401 (2016).
21. J. Trinh, E. Bruck, T. Siegrist, R. Flint, P. Chandra, P. Coleman and A. Ramirez, *Thermodynamic Measurement of Angular Anisotropy at the Hidden Order Transition of URu_2Si_2* , Phys. Rev. Lett. **117**, 157201 (2016).
22. Tai Kong, William R. Meier, Qisheng Lin, Scott M. Saunders, Sergey L. Bud'ko, Rebecca Flint, Paul C. Canfield, *Physical properties of single crystalline RMg_2Cu_9 ($R = Y, Ce-Nd, Gd-Dy, Yb$) and the search for in-plane magnetic anisotropy in hexagonal systems*, Phys. Rev. B **94**, 144434 (2016).
23. Pinaki Das, P. -F. Lory, R. Flint, T. Kong, T. Hiroto, S. L. Bud'ko, P. C. Canfield, M. de Boissieu, A. Kreyssig, and A. I. Goldman, *Crystal electric field excitations in the quasicrystal approximant $TbCd_6$ studied by inelastic neutron scattering*, Phys. Rev. B **95**, 054408 (2017).
24. Guanghua Zhang, J.K. Glasbrenner, Rebecca Flint, Rafael Fernandes and I.I. Mazin, *Double stage nematic bond-ordering above double stripe magnetism: application to $BaTi_2Sb_2O$* , Phys. Rev. B **95**, 174402 (2017).

25. Guanghua Zhang and Rebecca Flint, *Emergent Ising degrees of freedom above double-stripe magnetism*, Phys. Rev. B **96**, 214438 (2017).
26. Jyotisman Sahoo, Dmitrii Kochkov, Bryan K. Clark and Rebecca Flint, *Classical phase diagram of the stuffed honeycomb lattice*, Phys. Rev. B **98**, 134419 (2018).
27. Guanghua Zhang, John van Dyke and Rebecca Flint, *Cubic hastatic order in the two-channel Kondo-Heisenberg model*, Phys. Rev. B **98**, 235143 (2018).
28. John van Dyke, Guanghua Zhang and Rebecca Flint, *Field-induced ferrohastatic phase in cubic non-Kramers doublet systems*, Phys. Rev. B **100**, 205122 (2019)
29. Jyotisman Sahoo and Rebecca Flint, *Symmetric spin liquids on the stuffed honeycomb lattice*. Phys. Rev. B **101**, 115103 (2020).
30. Victor Quito and Rebecca Flint, *Floquet engineering correlated materials with unpolarized light*, Phys. Rev. Lett. **126**, 177201 (2021)
31. Victor Quito and Rebecca Flint, *Polarization as a tuning parameter for Floquet engineering: magnetism in the honeycomb, square, and triangular Mott insulators*, Phys. Rev. B **103**, 134435 (2021).
32. Milan Kornjaca and Rebecca Flint, *Unified theory of hastatic order and antiferromagnetism in URu₂Si₂*, Phys. Rev. B **108**, 085133 (2023).
33. Victor Quito and Rebecca Flint, *Floquet Engineering Multi-channel Kondo physics*, Phys. Rev. B **108**, 155120 (2023).
34. Pinaki Das, Andreas Kreyssig, Gregory Tucker, Andrey Podlesnyak, Feng Ye, Masaaki Matsuda, Tai Kong, Sergey L. Bud'ko, Paul C. Canfield, Rebecca Flint, Robert J. McQueeney, and Alan I. Goldman, *Short-range magnetic correlations in quasicrystalline i-Tb-Cd*, Phys. Rev. B **108**, 134421 (2023).
35. S. Huyan, T. J. Slade, H. Wang, R. Flint, R. A. Ribeiro, W. Xie, S. L. Bud'ko, and P. C. Canfield, *Double-domed temperature-pressure phase diagram of CePd₃S₄*, Phys. Rev. B **109**, 094406 (2024).
36. Milan Kornjača and Rebecca Flint, *Algebraic Hastatic Order in One-Dimensional Two-Channel Kondo Lattice*, Phys. Rev. Lett. **133**, 026503 (2024).

SUBMITTED

1. Milan Kornjaca and Rebecca Flint, *Signatures of spinorial order in URu₂Si₂: Landau-Ginzburg theory of hastatic order* (submitted to SciPost Physics, currently revising, arXiv: 2012.08511)
2. Milan Kornjaca, Victor Quito and Rebecca Flint, *Mobile Majorana zero-modes in two-channel Kondo insulators* (submitted to Science Advances, currently revising, arXiv:2104.11173)
3. Milan Kornjaca and Rebecca Flint, *Distinct effect of Kondo physics on crystal field splitting in electron and spin spectroscopies*, (submitted to PRL, arXiv:2407.09971)
4. Y. Lee, Z. Ning, R. Flint, R. J. McQueeney, I. I. Mazin, Liqin Ke, *Towards a first-principles theory of rare earth ions in crystals* (submitted to npj Computational Materials, arXiv:2407.10067).
5. Weiyi, Zia, Wei-Shen Tee, Paul C. Canfield, Fernando Assis Garcia, Raquel D. Ribeiro, Yongbin Lee, Liqin Ke, Rebecca Flint, Cai-Zhuang Wang, *Machine learning accelerated*

prediction of Ce-based ternary compounds involving antagonistic pairs (submitted to Phys. Rev. Mater., arXiv:2407.11208)

6. Milan Kornjaca and Rebecca Flint, *Tuning magnetic interactions with nonequilibrium optical phonon populations*, (submitted to PRB, arXiv:2410.21373)

INVITED CONFERENCE PROCEEDINGS

1. Premala Chandra*, Piers Coleman and Rebecca Flint, *Origin of the Large Anisotropy in the χ^3 Anomaly in URu₂Si₂*, Conference Proceedings from Materials and Mechanisms of Superconductivity 2012, Washington, D.C. , Journal of Physics Conference Series, 449 UNSP 012026 (2013).
2. Premala Chandra*, Piers Coleman, Rebecca Flint, Jennifer Trinh, Art Ramirez, *Implications of the Measured Angular Anisotropy at the Hidden Order Transition of URu₂Si₂*, Contributed article to SCES Proceedings 2017. Physica B 536, 145-149 (2018)

INVITED TALKS

1. Rebecca Flint, *Effect of valence fluctuations on magnetic anisotropy*, LANL Quantum Materials Workshop, LANL, Los Alamos, NM, August 2024.
2. Rebecca Flint, *Spinorial hybridization and Majorana physics in two-channel Kondo lattices*, Condensed matter theory seminar at UIUC, April 2024.
3. Rebecca Flint, *Enhancing magnetic anisotropy with valence fluctuations*, Theoretical Condensed Matter Principle Investigator Workshop (DOE), Maryland, April 2024.
4. Rebecca Flint, *Multi-channel Kondo Physics: From Intrinsic Criticality to Unconventional Orders*, Spring School on Electron Correlations and Topology, Rice University, March 2024.
5. Rebecca Flint, *Mobile Majorana zero modes in two channel Kondo insulators*, Quantum Materials in the Quantum Information Era, MPI-PKS Dresden, Germany, September 2023.
6. Rebecca Flint, *Mobile Majorana zero modes in two channel Kondo insulators*, LANL-PSI Workshop on Correlated and Topological Quantum Materials, Albuquerque, New Mexico, July 2023.
7. Rebecca Flint, *Mobile Majorana zero modes in two channel Kondo insulators*, ICTP-SAIFR Workshop on Strong Electronic Correlations, Sao Paolo, Brazil, June 2023.
8. Rebecca Flint, *Mobile Majorana zero modes in two channel Kondo insulators*, KITP workshop on "Topology, Symmetry and Interactions in Crystals," April 2023.
9. Rebecca Flint, *Emergent phenomena: from starlings to spin liquids*, Colloquium at Western Illinois University, March 2023.
10. Rebecca Flint, *Floquet engineering correlated materials: polarization as a tuning parameter*, Colloquium at Arizona State University, March 2023.
11. Rebecca Flint, *Emergent phenomena: from starlings to spin liquids*, Colloquium at Minnesota State University, Mankato, February 2023.
12. Rebecca Flint, *Emergent phenomena: from starlings to spin liquids*, Colloquium at University of Northern Iowa, September 2022.
13. Rebecca Flint, *Algebraic Hastic order in the one-dimensional two-channel Kondo lattice*, SCES 2022, Amsterdam, NL, July 2022.
14. Rebecca Flint, Theory summary for SCES 2022, Amsterdam, NL, July 2022

15. Rebecca Flint, Discussion leader for "New Platforms for Spin liquids", Correlated Electron Systems GRC, June 2022.
16. Rebecca Flint, *Mobile Majorana zero-modes in two-channel Kondo insulators*, SCES 2020 virtual conference (held in September 2021).
17. Rebecca Flint, *Novel pairing mechanisms in heavy fermion superconductors*, 20 years of the 115s virtual workshop, November 2020.
18. Rebecca Flint, *Novel orders in heavy fermion materials*, Colloquium at Kent State University, October 2020.
19. Rebecca Flint, *Hybridization with a twist: heavy fermion spinorial order in URu₂Si₂ and beyond*, Condensed Matter Seminar at Rice University, September 2020.
20. Rebecca Flint, *Emergent phenomena: from starlings to spin liquids*, Colloquium at Truman State University, October 2019.
21. Rebecca Flint, *Lectures on spin liquids and frustrated magnetism*, NHMFL Theory Winter School, Tallahassee, FL, January 2019.
22. Rebecca Flint, *Heavy fermion physics in non-Kramers doublet materials*, DOE Principal Investigators Meeting, Gaithersburg, MD, August 2018.
23. Rebecca Flint, *Spin liquid on the stuffed honeycomb lattice*, Workshop on Strongly Correlated Electronic Systems - from Quantum Criticality to Topology, ICTP Trieste, August 2018.
24. Rebecca Flint, *Novel orders in heavy fermion materials*, Physics colloquium at Binghamton University, April 2018.
25. Rebecca Flint, *Emergent phenomena: from starlings to spin liquids*, Physics seminar at St. Olaf College, April 2018.
26. Rebecca Flint, *Heavy fermion physics in non-Kramers doublet materials*, Condensed matter physics seminar at National High Magnetic Field Lab/Florida State University, March 2018.
27. Rebecca Flint, *Emergent phenomena: from starlings to spin liquids*, Physics seminar at Grinnell College, November 2017.
28. Rebecca Flint, *Emergent phenomena: from starlings to spin liquids*, Physics seminar at Gustavus Adolphus College, October 2017.
29. Rebecca Flint, *Heavy fermion behavior in cubic non-Kramers systems*, invited talk at Aspen Center for Physics workshop on "Quantum criticality in metallic systems" August 2017.
30. Rebecca Flint, *Hidden (hastatic) order in URu₂Si₂: hybridization with a twist*, Invited talk at the APS March Meeting in New Orleans, March 2017.
31. Rebecca Flint, *Novel Kondo physics in non-Kramers doublets*, short invited talk at Lorentz Center Workshop on "Common threads in the phase diagrams of unconventional superconductors," February 2017.
32. Rebecca Flint, *Hidden (hastatic) order in URu₂Si₂: hybridization with a twist*, Physics Division Colloquium, Argonne National Lab, September 2016.
33. Rebecca Flint, *Hidden (hastatic) order in URu₂Si₂: hybridization with a twist*, Workshop on Experiment and Theory of the Electronic Structure of Correlated f-electron Materials, Temple University, August 2016.
34. Rebecca Flint, *Hidden (hastatic) order in URu₂Si₂: hybridization with a twist*, Condensed matter seminar, Indiana University, March 2016.

35. Rebecca Flint, *Hidden (hastatic) order in URu₂Si₂: hybridization with a twist*, Condensed matter seminar, Northwestern University, January 2016.
36. Rebecca Flint, *Novel Kondo physics in non-Kramers doublets*, Colloquium (student invited), Stanford University, December 2015.
37. Rebecca Flint, *Stabilizing spin liquids*, Colloquium at University of Iowa, September 2015.
38. Rebecca Flint, *Novel Kondo physics in non-Kramers doublets*, Beyond Quasiparticles: New Paradigms for Quantum Fluids, Aspen Workshop August 2015.
39. Rebecca Flint, *Novel Kondo physics in non-Kramers doublets*, Quantum Design Workshop at MPI-PKS Dresden, July 2015.
40. Rebecca Flint, *Hidden (hastatic) order in URu₂Si₂: hybridization with a twist*, Condensed Matter Seminar at Texas A&M University, April 2015.
41. Rebecca Flint, *Novel Kondo physics in non-Kramers doublets*, Symposium on Quantum Criticality: Heavy Fermion Systems and Beyond at Rice University, March 2015.
42. Rebecca Flint, *Hidden (hastatic) order in URu₂Si₂: hybridization with a twist*, Condensed Matter Seminar at University of Minnesota, February 2015.
43. Rebecca Flint, *Hidden (hastatic) order in URu₂Si₂*, Condensed Matter Seminar at University of Oklahoma, November 2014.
44. Rebecca Flint, *Hidden (hastatic) order in URu₂Si₂*, ICMT seminar at University of Illinois, Urbana-Champaign, October 2014.
45. Rebecca Flint, *Charge aspects of Composite Pair Superconductivity*, KITP conference "Strong Correlations and Unconventional Superconductivity", September 2014.
46. Rebecca Flint, *Stabilizing spin liquids: new ingredients*, Gordon Research Conference, Correlated Electron Systems, June 2014.
47. Rebecca Flint, *Charge aspects of composite pairing*, APS March Meeting, March 2014.
48. Rebecca Flint, *Hidden (hastatic) order in URu₂Si₂*, University of Michigan, Ann Arbor, Condensed Matter Seminar, February 2014
49. Rebecca Flint, Aspen Winter Conference "Unconventional Order in Strongly Correlated Electron Systems", Invited Talk on *Hidden (hastatic) order in URu₂Si₂*, January 2014
50. Rebecca Flint, *Hidden (hastatic) order in URu₂Si₂*, California Institute of Technology, Condensed Matter Seminar October 2013
51. Rebecca Flint, *Hidden (hastatic) order in URu₂Si₂*, Strongly Correlated Electron Systems, Tokyo, Japan, Invited Talk, August 2013
52. Rebecca Flint, *Spins, electrons and broken symmetries: manifestations of two-channel Kondo physics*, Actinides 2013, Karlsruhe, Germany, Invited Talk, July 2013
53. Rebecca Flint, *Stabilizing spin liquids: Two new ingredients*, Condensed Matter Seminar, Karlsruhe Institute of Technology, July 2013
54. Rebecca Flint, *Hidden (hastatic) order in URu₂Si₂*, Argonne Materials Science Division Seminar, March 2013.
55. Rebecca Flint, *Hidden (hastatic) order in URu₂Si₂*, Iowa State University Colloquium, February 2013
56. Rebecca Flint, *Hidden (hastatic) order in URu₂Si₂*, Innovations in Strongly Correlated Electronic Systems: School and Workshop (ICTP Trieste), Invited Talk, August 2012
57. Rebecca Flint, *Composite order and tandem pairing in the 115 family*, Materials and Mechanisms of Superconductivity, Washington DC, Invited Talk, July 2012.

58. Rebecca Flint, *Chiral RKKY effect in Pr₂Ir₂O₇ and Hastic order in URu₂Si₂*, Simons Postdoctoral Fellows Meeting (Stonybrook, NY), April 2012
59. Rebecca Flint, *Spins, electrons and broken symmetries: new perspectives on heavy fermion materials*, Rutgers University, Physics Colloquium, December 2012.
60. Rebecca Flint, *How spins become pairs: local pairing in heavy fermion superconductors*, Gordon Research Conference: Superconductivity, Invited Talk, June 2011.
61. Rebecca Flint, *How spins become pairs: composite pairing and magnetism in heavy fermion superconductors*, APS March Meeting (Dallas, TX), March, 2011.
62. Rebecca Flint, *How spins become pairs: composite pairing and magnetism in heavy fermion superconductors*, Princeton Condensed Matter Seminar, October 2010
63. Rebecca Flint, Andriy Nevidomskyy and Piers Coleman, *Composite Pairing in a mixed valent two channel Anderson model*, Plutonium Futures - The Science 2010 (Keystone, CO), Invited Talk, September 2010
64. Rebecca Flint, *How spins become pairs: composite pairing and magnetism in heavy fermion superconductors*. Principles and Design of Strongly Correlated Electronic Systems (ICTP Trieste), Invited Talk, August 2010
65. Rebecca Flint, *How spins become pairs: composite pairing and magnetism in heavy fermion superconductors*. Massachusetts Institute of Technology Condensed Matter Seminar, January 2010
66. Rebecca Flint, *How spins become pairs: composite pairing and magnetism in heavy fermion superconductors*. University of Illinois, Urbana-Champaign Condensed Matter Seminar, January 2010.

CONTRIBUTED PAPERS, TALKS

1. Rebecca Flint, *Enhancement of magnetic anisotropy via the Kondo effect*, APS March Meeting 2024, contributed talk.
2. Rebecca Flint, *Mobile Majorana zero-modes in two-channel Kondo insulators*, APS March Meeting 2021 contributed talk (virtual)
3. Rebecca Flint, *Realistic Model for Ferrohastic Order in Cubic Pr-based Materials*, ICM/SCES San Francisco contributed talk, July 2018
4. Rebecca Flint, *Novel Kondo physics in non-Kramers doublets*, ICM/SCES Barcelona Contributed Talk, July 2015.
5. Rebecca Flint and Patrick A. Lee, *LiZn₂Mo₃O₈: honeycomb spin liquid in a triangular lattice material?*, APS March Meeting Contributed Talk, March 2013.
6. Rebecca Flint and T. Senthil, *Chiral RKKY effect in Pr₂Ir₂O₇*, APS March Meeting Contributed Talk, March 2012.
7. Rebecca Flint and Piers, Coleman, *How spins become pairs: composite pairing and magnetism in heavy fermion superconductors*, Strongly Correlated Electron Systems (Santa Fe, NM) Contributed Talk, June 2010
8. Rebecca Flint and Piers Coleman, *Symplectic-N, the t - J1 - J2 model and the iron-based superconductors*, APS March Meeting Contributed Talk, March 2010.
9. Rebecca Flint, Maxim Dzero and Piers Coleman, *Two Channel Kondo Effect and Superconductivity in Pu and Np Compounds*, APS March Meeting Contributed Talk, March 2009.

FUNDED PROPOSALS/EXTERNAL FUNDING:

1. NSF CAREER: Rebecca Flint, *Stabilizing Spin Liquids*, 8/16/2016 – 8/15/2021, \$500,000
2. DOE Early Career: Rebecca Flint, *Exotic Kondo Phases: the non-Kramers Doniach phase diagram*, 8/16/2016 – 8/15/2021, \$750,000
3. DOE LAB Lead PI: Rebecca Flint; Co PIs: Paul Canfield, Liqin Ke, Raquel Ribeiro, Cai-Zhuang Wang, Benjamin Ueland, *Exploiting the interplay between mixed valence and magnetic anisotropy in rare earths*, 9/1/2022 – 8/31/2025, \$4.5M.