MING YI

Department of Physics and Astronomy, Rice University
http://yilab.rice.edu/
mingyi@rice.edu

RESEARCH INTERESTS

Experimental condensed matter physics. Using spectroscopy tools to deepen fundamental understanding of how orders emerge in strongly correlated electron systems and topological materials.

EMPLOYMENT

Associate Professor 2024-present
Department of Physics and Astronomy, Rice University

Assistant Professor 2018-2024
Department of Physics and Astronomy, Rice University

Postdoctoral Researcher 2014-2018
Advisor: Prof. Robert Birgeneau
Department of Physics, University of California, Berkeley

EDUCATION

Ph.D. in Physics, Stanford University 2014
Advisor: Prof. Zhi-Xun Shen
Thesis: *Electronic Phases in Iron-Based High Temperature Superconductors*

B.S. in Physics, Massachusetts Institute of Technology 2007
Advisor: Prof. Eric Hudson
Thesis: *Imaging the Two Gaps of the High Temperature Superconductor Pb-$Bi_2Sr_2CuO_{6+x}$*

HONORS AND AWARDS

Ardentec Outstanding Young Researcher Award, OCPA	2023
Rising Star Award, Rice School of Natural Sciences	2022
Bryan R. Coles Prize	2021
DOE Early Career Award	2020
Moore Emergent Phenomena in Quantum Systems Experimental Investigator	2020
Alfred P. Sloan Fellowship	2019
IUPAP Young Scientist Prize in the Structure and Dynamics of Condensed Matter	2019
William E. and Diane M. Spicer Young Investigator Award	2018
Outstanding Dissertation Award, OCPA	2017
L'Oréal USA For Women In Science Fellowship	2015
62nd Lindau Nobel Laureats Meeting USA Delegation	2012
National Science Foundation Graduate Research Fellowship	2008
Malcolm Cotton Brown Award, MIT Physics Department	2007

WORKSHOPS ORGANIZED

Workshop on Flat Bands, Strong Correlations and Topology, Rice Center for Quantum Materials, Co-organizer Nov. 2023
Advanced Light Source Visioning Workshop on Condensed Matter, Co-organizer Sep. 2023
Samsung-EPiQS Workshop, Co-organizer Oct. 2023
DMREF Workshop on Quasi-One-Dimensional Topological Quantum Materials Jan. 2023 UBC-RICE
4th Annual Workshop on Quantum Materials, Co-organizer Dec. 2022
UBC-RICE 3rd Annual Workshop on Quantum Materials, Co-organizer Dec. 2021
Workshop on Topological Materials and Electron Correlations, Rice Center for Quantum Materials, Co-organizer Nov. 2021
Symposium on Fe-based Superconductivity and seminar series, Rice Center for Quantum Materials, Co-organizer Spring, 2021

PUBLICATIONS

(*Google Scholar: total citations: >6000; h-index: 38*)

†*Corresponding;* **Equal Contribution*

Preprints

5. X. Teng, D. W. Tam, L. Chen, H. Tan, Y. Xie, B. Gao, G. E. Granroth, A. Ivanov, P. Bourges, B. Yan, M. Yi, P. Dai
Spin-charge-lattice coupling across the charge density wave transition in a Kagome lattice antiferromagnet
arXiv: 2404.04459

4. J. S. Oh, A. Biswas, M. Klemm, H. Tan, M. Hashimoto, D. Lu, B. Yan, P. Dai, R. J. Birgeneau, M. Yi
Tunability of charge density wave in a magnetic kagome metal
arXiv: 2404.02231

3. Y. Gao, S. Lei, E. M. Clements, Y. Zhang, X.-J. Gao, S. Chi, K. T. Law, M. Yi, J. W. Lynn, E. Morosan.
Anomalous Hall effect in the antiferromagnetic Weyl semimetal SmAlSi
arXiv: 2310.09364

2. J. Huang, C. Setty, L. Deng, G. Chang, J. S. Oh, Y. Guo, J. X. Yin, M. Hashimoto, D. Lu, P. Dai, M. Z. Hasan, R. J. Birgeneau, Y. Shi, C.-W. Chu, Q. Si, M. Yi†
Three-Dimensional Flat Bands and Dirac Cones in a Pyrochlore Magnetic Superconductor
arXiv: 2304.09066

1. Y.-F. Li, S.-D. Chen, H. Pfau, Q.-Y. Chen, Y.-L. Zhu, Z.-Q. Mao, T. Chen, M. Yi, P. Dai, J.A. Sobota, M. Hashimoto, D.-H. Lu and Z.-X. Shen†
Topological non-triviality in Fe(Te,Se)-evidence from persistent Dirac surface state and band inversion
arXiv: 2307.03861

Published

94. H. Wu, S. Li, Y. Lyu, Y. Guo, W. Liu, J. S. Oh, Y. Zhang, S.-K. Mo, C. dela Cruz, R. J. Birgeneau, K. Taddei, M. Yi, L. Yang, B. Lv.
Tailoring Physical Properties of Crystals through Synthetic Temperature Control: A Case Study for

new Polymorphic $NbFeTe_2$ phases
Phys. Rev. B 109, 174427 (2024)

93. L. Chen, X. Teng, D. Hu, F. Ye, G. E. Granroth, M. Yi, J.-H. Chung, R. J. Birgeneau, P. Dai
Thermal evolution of spin excitations in honeycomb Ising antiferromagnetic $FePSe_3$
npj Quantum Materials 9, 40 (2024)

92. H. Wu, Lei Chen, P. Malinowski, B. G. Jang, Q. Deng, K. Scott, J. Huang, J. P. C. Ruff, Y. He, X. Chen, Z. Yue, J. S. Oh, X. Teng, Y. Guo, M. Klemm, C. Shi, Y. Shi, C. Setty, T. Werner, M. Hashimoto, D. Lu, T. Yilmaz, E. Vescovo, S.-K. Mo, J. Denlinger, Y. Xie, B. Gao, J. Kono, P. Dai, Y. Han, R. J. Birgeneau, J.-X. Zhu, E. H. da Silva Neto, L. Wu, J.-H. Chu, Q. Si, M. Yi†
Reversible Non-Volatile Electronic Switching in a Near Room Temperature van der Waals Ferromagnet
Nat. Comm. 15, 2739 (2024).

91. H. Wu, C. Hu, Y. Xie, B. G. Jang, J. Huang, Y. Guo, S. Wu, C. Hu, Z. Yue, Y. Shi, Z. Ren, T. Yilmaz, E. Vescovo, C. Jozwiak, A. Bostwick, E. Rotenberg, A. Fedorov, J. D. Denlinger, C. Klewe, P. Shafer, D. Lu, M. Hashimoto, J. Kono, R. J. Birgeneau, X. Xu, J.-X. Zhu, P. Dai, J.-H. Chu, and M. Yi†
Spectral Evidence for Local-Moment Ferromagnetism in van der Waals Metals Fe_3GaTe_2 and Fe_3GeTe_2
Phys. Rev. B 109, 104410 (2024).

90. S. Wu, M. Klemm, J. Shah, E. T. Ritz, C. Duan, X. Teng, B. Gao, F. Ye, M. Matsuda, F. Li, X. Xu, M. Yi, T. Birol†, P. Dai†, and G. Blumberg†
Symmetry breaking and ascending in the magnetic kagome metal FeGe
Phys. Rev. X 14, 011043 (2024).

89. L. Chen, X. Teng, H. Tan, B. L. Winn, G. E. Granorth, F. Ye, D. H. Yu, R. A. Mole, B. Gao, B. Yan, M. Yi and P. Dai†
Competing itinerant and local spin interactions in kagome metal FeGe
Nat. Comm. 15, 1918 (2024).

88. K. J. Neubauer, M. L. Klemm, S. Mozaffari, L. Jiao, A. E. Koshelev, A. Yaresko, M. Yi, L. Balicas, P. Dai
In-plane anisotropic magnetoresistance in detwinned Ba(Fe2-xNix)2As2 (x = 0, 0.6)
Phys. Rev. B 109, 054435 (2024).

87. M. L. Klemm, S. Mozaffari, R. Zhang, B. W. Casas, A. E. Koshelev, M. Yi, L. Balicas, and P. Dai†
Nematic superconductivity from selective orbital pairing in iron pnictide single crystals
Cell Reports Physical Science 5, 101816 (2024).

86. S. Cheng*, Z. Ren*, H. Li, J. S. Oh, H. Tan, G. Pokharel, J. M. DeStefano, E. Rosenberg, Y. Guo, Y. Zhang, Z. Yue, Y. Lee, S. Gorovikov, M. Zonno, M. Hashimoto, D. Lu, L. Ke, F. Mazzola, J. Kono, R. J. Birgeneau, J.-H. Chu, S. D. Wilson, Z. Wang, B. Yan, M. Yi†, I. Zeljkovic†
Nanoscale visualization and spectral fingerprints of the charge order in ScV_6Sn_6 distinct from other kagome metals
npj Quantum Materials 9, 14 (2024).

85. J. Huang, L. Chen*, Y. Huang*, C. Setty*, B. Gao, Y. Shi, Z. Liu, Y. Zhang, T. Wilmaz, M. Hashimoto, D. Lu, E. Vescovo, B. I. Yakobson, P. Dai, J.-H. Chu, Q. Si†, M. Yi†
Non-Fermi liquid behavior in a correlated flatband pyrochlore lattice
Nat. Phys. 20, 603 (2024).

84. H. Wu, J.-X. Zhu, L. Chen, M. W. Butcher, Z. Yue, D. Yuan, Y. He, J. S. Oh, J. Huang, S. Wu, C. Gong, S.-K. Mo, J. Denlinger, D.H. Lu, M. Hashimoto, M. B. Stone, Al. I. Kolesnikov, S. Chi, J. Kono, A. Nevidomskyy, R. J. Birgeneau, P. Dai, M. Yi†

Two-Step Electronic Response to Magnetic Ordering in a van der Waals Ferromagnet
Phys. Rev. B 109, 045416 (2024).

83. J. S. Oh, T. Xu, N. Dhale, S. Li, C. Lei, C. Yoon, W. Liu, J. Huang, H. Wu, M. Hashimoto, D. Lu, C. Jozwiak, A. Bostwick, E. Rotenberg, C. N. Lau, B. Lv†, F. Zhang†, R. Birgeneau†, M. Yi†
Ideal Weak Topological Insulator and Protected Helical Saddle Points
Phys. Rev. B 108, L201104 (2023).

82. Y. Zhang*, R. Zhou*, H. Wu*, J. S. Oh, S. Li, J. Huang, J. D. Denlinger, M. Hashimoto, D. Lu, S.-K. Mo, K. Kelly, R. J. Birgeneau, B. Lv†, G. Li†, M. Yi†
Charge order induced Dirac pockets in the nonsymmorphic crystal $TaTe_4$
Phys. Rev. B 108, 155121 (2023).

81. S. Lei, K. Allen, J. Huang, J. M. Moya, T. C. Wu, B. Casas, Y. Zhang, J. S. Oh, M. Hashimoto, D. Lu, J. Denlinger, C. Jozwiak, A. Bostwick, E. Rotenberg, L. Balicas, R. Birgeneau, M. S. Foster, M. Yi, Y. Sun†, E. Morosan†
Weyl nodal ring states and Landau quantization with very large magnetoresistance in square-net magnet $EuGa_4$
Nat. Comm. 14, 5812 (2023).

80. J. Huang†, Z. Yue, A. Baydin, H. Zhu, H. Nojiri, J. Kono, Y. He†, and M. Yi†
Angle-resolved photoemission spectroscopy with an in situ tunable magnetic field
Rev. Sci. Instrum. 94, 093902 (2023).

79. J. M. Moya, J. Huang, S. Lei, K. Allen, Y. Gao, Y. Sun, M. Yi, E. Morosan†
Real-space and reciprocal-space topology in the $Eu(Ga_{1-x}Al_x)_4$ square net system
Phys. Rev. B 108, 064436 (2023).

78. J. Huang, Y. Guo, and M. Yi†
Electron correlations and nematicity in the iron-based superconductors
Synchrotron Radiat. News 36, 30-38 (2023).
(contribution to special issue on Unconventional Superconductivity)

77. Y. Guo, M. Klemm, J. S. Oh, Y. Xie, B.-H. Lei, S. Gorovikov, T. Pedersen, M. Michiardi, S. Zhdanovich, A. Damascelli, J. Denlinger, M. Hashimoto, D. Lu, S.-K. Mo, R. G. Moore, R. J. Birgeneau, D. J. Singh, P. Dai, M. Yi†
Spectral Evidence for Unidirectional Charge Order in Detwinned $BaNi_2As_2$
Phys. Rev. B 108, L081104 (2023).

76. Y. Zhang, Y. Gao, X. Gao, S. Lei, Z. Ni, J. S. Oh, M. Hashimoto, D. Lu, S. Gorovikov, R. J. Birgeneau, L. Wu, K. T. Law†, E. Morosan†, M. Yi†
Kramers Nodal Lines and Weyl Fermions in SmAlSi
Comm. Phys. 6, 134 (2023).

75. X. Teng, J. S. Oh, H. Tan, L. Chen, J. Huang, B. Gao, J.-X. Yin, J.-H. Chu, M. Hashimoto, D. Lu, C. Jozwiak, A. Bostwick, E. Rotenberg, G. E. Granroth, B. Yan, R. J. Birgeneau†, P. Dai†, M. Yi†
Magnetism and charge density wave in a kagome lattice
Nat. Phys. 19, 814-822 (2023).

74. A. E. Bohmer†, J.-H. Chu, S. Lederer, M. Yi
Nematicity and nematic fluctuations in iron-based superconductors
Nat. Phys. 18, 1412-1419 (2022). (invited perspective for Nature Physics)

73. J.-X. Yin, Y.-X. Jiang, X. Teng, Md. S. Hossain, S. Mardanya, T.-R. Chang, G. Xu, M. M. Denner, T. Neupert, K. Jiang, H.-B. Deng, J. Hu, C. Setty, Q. Si, G. Chang, Z. Guguchia, B. Gao, N. Shumiya, Q. Zhang, T. A. Cochran, D. Multer, M. Litskevich, Z.-J. Cheng, X. P. Yang, M. Yi, P. Dai, M. Z. Hasan†

Microscopic evidence for topological charge order in kagome magnet FeGe
Phys. Rev. Lett. 129, 166401 (2022).

72. E. Rosenberg, J. M. DeStefano, Y. Guo, J. S. Oh, M. Hashimoto, D. Lu, R. J. Birgeneau, Y. Lee, L. Ke, M. Yi, J.-H. Chu†
Uniaxial ferromagnetism in the kagome metal TbV_6Sn_6
Phys. Rev. B 106, 115139 (2022).

71. H. Liu, X. Hu, H. Guo, X. Teng, Z. Luo, L. Li, Z. Liu, M. Huo, F. Liang, H. Sun, B. Shen, P. Dai, R. J. Birgeneau, D.-X. Yao, M. Yi, M. Wang†
Single crystal growth and superconductivity in $RbNi_2Se_2$
Phys. Rev. B 106, 094511 (2022).

70. X. Teng, L. Chen, F. Ye, E. Rosenberg, Z. Liu, J.-X. Yin, Y.-X. Jiang, J. S. Oh, M. Z. Hasan, K. J. Neubauer, B. Gao, Y. Xie, M. Hashimoto, D. Lu, C. Jozwiak, A. Bostwick, E. Rotenberg, R. J. Birgeneau, J.-H. Chu, M. Yi†, P. Dai†
Charge density wave in the antiferromagnetic ordered state of metallic kagome lattice FeGe
Nature 609, 490 (2022).

69. D. Gong, M. Yi, M. Wang, T. Xie, W. Zhang, S. Danilkin, G. Deng, X. Liu, J. T. Park, K. Ikeuchi, K. Kamazawa, S.-K. Mo, M. Hashimoto, D. Lu, R. Zhang, P. Dai, R. J. Birgeneau, S. Li, H. Luo†
Nematic fluctuations in the non-superconducting iron pnictide $BaFe_{1.9-x}Ni_{0.1}Cr_xAs_2$
Frontiers in Physics 10, 886459 (2022).

68. B.-H. Lei, Y. Xie, P. Dai, M. Yi, D. J. Singh†
Complex structure due to As bonding and interplay with electronic structure in superconducting $BaNi_2As_2$
Phys. Rev. B 105, 144505 (2022).

67. H. Wu, A. M. Hallas, S.-K. Mo, D. Lu, M. Hashimoto, V. Loganathan, A. Nevidomskyy, G. Li†, E. Morosan†, M. Yi†
Nonsymmorphic Symmetry-Protected Band Crossings in Correlated Metal $PtPb_4$
npj Quantum Materials 7, 31 (2022).

66. J. Huang, R. Yu, Z. Xu, J.-X. Zhu, J. S. Oh, Q. Jiang, M. Wang, H. Wu, T. Chen, J. Denlinger, S.-K. Mo, M. Hashimoto, M. Michiardi, T. M. Pedersen, S. Gorovikov, S. Zhdanovich, A. Damascelli, G. Gu, P. Dai, J.-H. Chu, D. Lu, Q. Si, R. J. Birgeneau†, M. Yi†
Correlation-Driven Electronic Reconstruction in $FeTe_{1-x}Se_x$
Comm. Phys. 5, 29 (2022).

65. Y. Liu, R. Chen, Z. Zhang, M. Bockrath, C. N. Lau†, Y.-F. Zhou, C. Yoon, S. Li, X. Liu, N. Dhale, B. Lv, F. Zhang, K. Watanabe, T. Taniguichi, J. Huang, M. Yi, J.S. Oh, R. J. Birgeneau
Gate-Tunable Transport and Unconventional Band Topology in Quasi-One-Dimensional α-Bi_4I_4 Field Effect Transistors
Nano Lett. (2022).

64. H. Pfau, M. Yi, M. Hashimoto, T. Chen, P.-C. Dai, Z.-X. Shen, S.-K. Mo, and D. Lu†
Quasiparticle coherence in the nematic state of FeSe
Phys. Rev. B 104, L241101 (2021).

63. S. Li, Y. Zhang, H. Wu, H. Zhai, D. Petit, G. T. McCandless, J. Chan, G. Li, M. Yi†, B. Lv†
Transport Anomalies in the New Layered $BaPt_4Se_6$ Compound
npj Quantum Materials 6, 80 (2021).

62. J. Huang*, S. Li*, C. Yoon*, J. Oh, H. Wu, X. Liu, Y. Zhou, Y. Zhang, M. Hashimoto, D. H. Lu, J. Denlinger, C. N. Lau, R. J. Birgeneau†, F. Zhang†, B. Lv†, M. Yi†

Temperature-Induced Topological Phase Transition in Quasi-One-Dimensional Material Bi_4I_4
Phys. Rev. X 11, 031042 (2021).

61. J. Huang, Z. Wang, H. Pang, H. Wu, H. Cao, S.-K. Mo, A. Rustagi, A. F. Kemper, M. Wang†, M. Yi†, R. J. Birgeneau†
Flatband-Induced Itinerant Ferromagnetism in $RbCo_2Se_2$
Phys. Rev. B 103, 165105 (2021).

60. S. Wu, Y. Song, Y. He, A. Frano, M. Yi, X. Chen, H. Uchiyama, A. Alatas, A. H. Said, L. Wang, T. Wolf, C. Meingast, R. J. Birgeneau†
Short-range nematic fluctuations in $Sr_{1-x}Na_xFe_2As_2$ superconductors
Phys. Rev. Lett. 126, 107001 (2021).

59. S. A. Sreedhar, A. Rossi, J. Nayak, Z. Anderson, Y. Tang, B. Gregory, M. Hashimoto, D.-H. Lu, E. Rotenberg, R. J. Birgeneau, M. Greven, M. Yi, I. M. Vishik†
Three interaction energy scales in single-layer high-T_C cuprate $HgBa_2CuO_{4+\delta}$
Phys. Rev. B 102, 205109 (2020).

58. T. Chen, M. Yi† and P. Dai†
Electronic and Magnetic Anisotropies in FeSe Family of Iron-Based Superconductors
Front. Phys. 9, 314 (2020).

57. D. W. Tam, Z. Yin, Y. Xie, W. Wang, M. B. Stone, D. T. Adroja, H. C. Walker, M. Yi and P. Dai†
Orbital selective spin waves in detwinned NaFeAs
Phys. Rev. B 102, 054430 (2020).

56. J. Yu, M. Wang, B. A. Frandsen, H. Sun, J. Yin, Z. Liu, S. Wu, M. Yi, Z. Xu, A. Acharya, Q. Huang, E. Bourret-Courchesne, J. W. Lynn, R. Birgeneau†
Structural, magnetic, and electronic evolution of the spin-ladder system $BaFe_2S_{3-x}Se_x$ with isoelectronic substitution
Phys. Rev. B 101, 235134 (2020).

55. J. Ma, M. Yi, G. Affeldt, I. Hayes, C. Jozwiak, A. Bostwick, E. Rotenberg, J. Analytis, R. Birgeneau, A. Lanzara†
Spatial nematic fluctuation in $BaFe_2(As_{1-x}P_x)_2$ revealed by spatially and angle-resolved photoemission spectroscopy
Phys. Rev. B 101, 094515 (2020).

54. M. Wang†, M. Yi†, B. A. Frandsen, J. Yin, H. Sun, Z. Xu, H. Cao, E. Bourret-Courchesne, J. W. Lynn, R. J. Birgeneau
Observation of a C-type short range antiferromagnetic order in expanded FeS
Phys. Rev. M 4, 034802 (2020).

53. S. Wu†, B. A. Frandsen, M. Wang, M. Yi, R. J. Birgeneau
Iron-Based Chalcogenide Spin Ladder $BaFe_2X_3$ (X = Se,S)
J Supercond Nov Magn 33, 143 (2020).

52. M. Yi†, H. Pfau, Y. Zhang, Y. He, H. Wu, T. Chen, Z. Ye, M. Hashimoto, R. Yu, Q. Si, D.-H. Lee, P. Dai, Z.-X. Shen, D. Lu†, R. J. Birgeneau†
The Nematic Energy Scale and the Missing Electron pocket in FeSe
Phys. Rev. X 9, 041049 (2019).

51. H. Pfau†, S. D. Chen, M. Yi, M. Hashimoto, C. R. Rotundu, J. C. Palmstrom, T. Chen, P.-C. Dai, J. Straquadine, A. Hristov, R. J. Birgeneau, I. R. Fisher, D. Lu, and Z.-X. Shen
Momentum Dependence of the Nematic Order Parameter in Iron-Based Superconductors
Phys. Rev. Lett. 123, 066402 (2019)

50. A. Frano†, M. Bluschke, Z. Xu, B. Frandsen, Y. Lu, M. Yi, R. Marks, A. Mehta, V. Borzenets, D. Meyers, M. P. M. Dean, F. Baiutti, J. Maier, G. Kim, G. Christiani, G. Logvenov, E. Benckiser, B. Keimer, and R. J. Birgeneau†
Control of dopant crystallinity in electrochemically treated cuprate thin films
Phys. Rev. Materials 3, 063803 (2019)

49. B. A. Frandsen†, K. M. Taddei, D. E. Bugaris, R. Stadel, M. Yi, A. Acharya, R. Osborn, S. Rosenkranz, O. Chmaissem, and R. J. Birgeneau
Widespread nematic fluctuations in the (Sr,Na)Fe_2As_2 family of superconductors
Phys. Rev. B 98, 180505(R) (2018)

48. L. Zheng, B. A. Frandsen†, C. Wu, M. Yi, S. Wu, Q. Huang, E. Bourret-Courchesne, G. Simutis, R. Khasanov, D.-X. Yao, M. Wang, and R. J. Birgeneau
Gradual enhancement of stripe-type antiferromagnetism in the spin-ladder material $BaFe_2S_3$ under pressure
Phys. Rev. B 98, 180402(R) (2018)

47. M. Yi†, A. Frano D. H. Lu, Y. He, M. Wang, B. Frandsen, A. F. Kemper, R. Yu, Q. Si, L. Wang, M. He, F. Hardy, P. Schweiss, P. Adelmann, T. Wolf, M. Hashimoto, S.-K. Mo, Z. Hussain, M. Le Tacon, A. E. Böhmer, D.-H. Lee, Z.-X. Shen, C. Meingast, and R. J. Birgeneau†
Spectral Evidence for Emergent Order in $Ba_{1-x}Na_xFe_2As_2$
Phys. Rev. Lett. 121, 127001 (2018)

46. Y. He†, S. Wu, Y. Song, W.-S. Lee, A. H. Said, A. Alatas, A. Bosak, A. Girard, S. M. Souliou, A. Ruiz, M. Hepting, M. Bluschke, E. Schierle, E. Weschke, J.-S. Lee, H. Jang, H. Huang, M. Hashimoto, D.-H. Lu, D. Song, Y. Yoshida, H. Eisaki, Z.-X. Shen, R. J. Birgeneau, M. Yi†, and A. Frano†
Persistent low-energy phonon broadening near the charge-order q vector in the bilayer cuprate $Bi_2Sr_2CaCu_2O_{8+\delta}$
Phys. Rev. B 98, 035102 (2018) (Editors' Suggestion)

45. Z. Xu, J. A. Schneeloch, M. Yi, Y. Zhao, M. Matsuda, D. M. Pajerowski, S. Chi, R. J. Birgeneau, G. Gu, J. M. Tranquada, G. Xu†
Coexistence of superconductivity and short-range double-stripe spin correlations in Te-vapor annealed $FeTe_{1-x}Se_x$ ($x \leqslant 0.2$)
Phys. Rev. B 97, 214511 (2018) (Editors' Suggestion)

44. B. A. Frandsen, K. M. Taddei, M. Yi, A. Frano, Z. Guguchia, R. Yu, Q. Si, D. E. Bugaris, R. Stadel, R. Osborn, S. Rosenkranz, O. Chmaissem, R. J. Birgeneau†
Local orthorhombicity in the magnetic C_4 phase of the hole-doped iron-arsenide superconductor $Sr_{1-x}Na_xFe_2As_2$
Phys. Rev. Lett. 119, 187001 (2017)

43. M. Yi*, Y. Zhang*, Z.-X. Shen†, and D. H. Lu†
Role of the orbital degree of freedom in iron-based superconductors
npj Quantum Materials 2, 57 (2017) (invited review)

42. W. Li†, Y. Zhang, P. Deng, Z. Xu, S.-K. Mo, M. Yi, H. Ding, M. Hashimoto, R. G. Moore, D.-H. Lu, X. Chen†, Z.-X. Shen†, Q.-K. Xue
Stripes developed at the strong limit of nematicity in FeSe film
Nat. Phys. 13, 957-961 (2017)

41. S. Gerber*, S.-L. Yang*, D. Zhu, H. Soifer, J. A. Sobota, S. Rebec, J. J. Lee, T. Jia, B. Moritz, C. Jia, A. Gauthier, Y. Li, D. Leuenberger, Y. Zhang, L. Chaix, W. Li, H. Jang, J.-S. Lee, M. Yi, G. L. Dakovski, S. Song, J. M. Glownia, S. Nelson, K. W. Kim, Y.-D. Chuang, Z. Hussain, R. G. Moore, T. P. Devereaux, W.-S. Lee†, P. S. Kirchmann†, Z.-X. Shen†

Femtosecond electron-phonon lock-in by photoemission and X-ray free-electron laser
Science 357, 71-75 (2017)

40. M. Wang†, S. J. Jin, M. Yi, Y. Song, H. C. Jiang, W. L. Zhang, H. L. Sun, H. Q Luo, A. D. Christianson, E. Bourret-Courchesne, D.H. Lee, Dao-Xin Yao, and R. J. Birgeneau
Strong ferromagnetic exchange interaction under ambient pressure in $BaFe_2S_3$
Phys. Rev. B 95, 060502(R) (2017)

39. Y. Zhang, M. Yi, Z.-K. Liu, W. Li, J. J. Lee, R. G. Moore, M. Hashimoto, M. Nakajima, H. Eisaki, S.-K. Mo, Z. Hussain, T. P. Devereaux, Z.-X. Shen†, and D. H. Lu†
Distinctive orbital anisotropy observed in the nematic state of a FeSe thin film
Phys. Rev. B 94, 115153 (2016)

38. Y. Zhang, J. J. Lee, R. G. Moore, W. Li, M. Yi, M. Hashimoto, D. H. Lu, T. P. Devereaux, D.-H. Lee, and Z.-X. Shen†
Superconducting Gap Anisotropy in Monolayer FeSe Thin Film
Phys. Rev. Lett. 117, 117001 (2016)

37. M. Wang†, M. Yi, S. Jin, H. Jiang, H. Luo, A. D. Christianson, C. de la Cruz, E. Bourret-Courchesne, D.-X. Yao, D. H. Lee, and R. J. Birgeneau
Spin waves and magnetic exchange interactions in the spin-ladder compound $RbFe_2Se_3$
Phys. Rev. B 94, 041111(R) (2016)

36. M. Wang†, M. Yi, H. L. Sun, P. Valdivia, M. G. Kim, Z. J. Xu, T. Berlijin, A. D. Christianson, Songxue Chi, M. Hashimoto, D. H. Lu, X. D. Li, E. Bourret-Courchesne, Pengcheng Dai, D. H. Lee, T. A. Maier, and R. J. Birgeneau
Experimental elucidation of the origin of the 'double spin resonances' in $Ba(Fe_{1-x}Co_x)_2As_2$
Phys. Rev. B 93, 205149 (2016)

35. M. Wang†, M. Yi, W. Tian, E. Bourret-Courchesne, and R. J. Birgeneau
Elucidating the magnetic and superconducting phases in the alkali metal intercalated iron chalcogenides
Phys. Rev. B 93, 075155 (2016)

34. Y. He, I. M. Vishik, M. Yi, S. Yang, Z. K. Liu, J. J. Lee, S. Chen, S. N. Rebec, D. Leuenberger, A. Zong, C. M. Jefferson, R. G. Moore, P. S. Kirchmann, A. J. Merriam, and Z.-X. Shen†
High resolution angle resolved photoemission with tabletop 11 eV laser
Rev. Sci. Instrum. 87, 011301 (2016) (invited article)

33. R. G. Moore†, W. S. Lee, P. S. Kirchman, Y. D. Chuang, A. F. Kemper, M. Trigo, L. Patthey, D. H. Lu, O. Krupin, M. Yi, D. A. Reis, D. Doering, P. Denes, W. F. Schlotter, J. J. Turner, G. Hays, P. Hering, T. Benson, J.-H. Chu, T. P. Devereaux, I. R. Fisher, Z. Hussain, and Z.-X. Shen†
Ultrafast resonant soft x-ray diffraction dynamics of the charge density wave in $TbTe_3$
Phys. Rev. B 93, 024304 (2016)

32. M. Yi†, M. Wang†, A. F. Kemper, S.-K. Mo, Z. Hussain, E. Bourret-Courchesne, A. Lanzara, M. Hashimoto, D. H. Lu, Z.-X. Shen, and R. J. Birgeneau
Bandwidth and Electron Correlation-Tuned Superconductivity in $Rb_{0.8}Fe_2(Se_{1-z}S_z)_2$
Phys. Rev. Lett. 115, 256403 (2015)

31. Z. K. Liu, M. Yi, Y. Zhang, J. Hu, R. Yu, J.-X. Zhu, R.-H. He, Y. L. Chen, M. Hashimoto, R. G. Moore, S.-K. Mo, Z. Hussain, Q. Si, Z. Q. Mao, D. H. Lu and Z.-X. Shen†
Experimental observation of incoherent-coherent crossover and orbital-dependent band renormalization in iron chalcogenide superconductors
Phys. Rev. B 92, 235138 (2015)

30. M. Wang†, M. Yi, H. Cao, C. de la Cruz, S.-K. Mo, Q. Z. Huang, E. Bourret-Courchesne, P. Dai,

D. H. Lee, Z.-X. Shen, R. J. Birgeneau
Mott localization in a pure stripe antiferromagnet $Rb_{1-\delta}Fe_{1.5-\sigma}S_2$
Phys. Rev. B 92, 121101(R) (2015)

29. M. Wang†, P. Valdivia, M. Yi, J. X. Chen, W. L. Zhang, R. A. Ewings, T. G. Perring, Y. Zhao, L. W. Harriger, J. W. Lynn, E. Bourret-Courchesne, P. Dai, D. H. Lee, D. X. Yao, R. J. Birgeneau
Spin waves and spatially anisotropic exchange interactions in the S = 2 stripe antiferromagnet $Rb_{0.8}Fe_{1.5}S_2$
Phys. Rev. B 92, 041109(R) (2015)

28. M. Yi*, Z.-K. Liu*, Y. Zhang*, R. Yu, J.-X. Zhu, J. J. Lee, R. G. Moore, F. T. Schmitt, W. Li, S. C. Riggs, J.-H. Chu, B. Lv, J. Hu, M. Hashimoto, S.-K. Mo, Z. Hussain, Z. Q. Mao, C. W. Chu, I. R. Fisher, Q. Si, Z.-X. Shen†, D.-H. Lu†
Observation of universal strong orbital-dependent correlation effects in iron chalcogenides
Nat. Comm. 6, 7777 (2015)

27. S. Gerber†, K. W. Kim, Y. Zhang, D. Zhu, N. Plonka, M. Yi, G. L. Dakovski, D. Leuenberger, P. S. Kirchmann, R. G. Moore, M. Chollet, J. M. Glownia, Y. Feng, J.-S. Lee, A. Mehta, A. F. Kemper, T. Wolf, Y.-D. Chuang, Z. Hussain, C.-C. Kao, B. Moritz, Z.-X. Shen, T. P. Devereaux, W.-S. Lee†
Direct characterization of photoinduced lattice dynamics in $BaFe_2As_2$
Nat. Comm. 6, 7377 (2015)

26. Y.-T. Cui, R. G. Moore, A.-M. Zhang, Y. Tian, J. J. Lee, F. T. Schmitt, W.-H. Zhang, W. Li, M. Yi, Z.-K. Liu, M. Hashimoto, Y. Zhang, D.-H. Lu, T. P. Devereaux, L.-L. Wang, X-C. Ma, Q.-M. Zhang, Q.-K. Xue, D.-H. Lee, Z.-X. Shen†
Interface Ferroelectric Transition near the Gap-Opening Temperature in a Single-Unit-Cell FeSe Film Grown on Nb-Doped $SrTiO_3$ *Substrate*
Phys. Rev. Lett. 114, 037002 (2015)

25. J. J. Lee*, F. T. Schmitt*, R. G. Moore*, S. Johnston, Y.-T. Cui, W. Li, M. Yi, Z. K. Liu, M. Hashimoto, Y. Zhang, D. H. Lu, T. P. Devereaux, D. -H. Lee, Z.-X. Shen†
Significant T_C *enhancement in FeSe films on* $SrTiO_3$ *due to interfacial mode coupling*
Nature 515, 245 (2014)

24. H. Suzuki, T. Kobayashi, S. Miyasaka, T. Yoshida, L. C. C. Ambolode II, S. Ideta, M. Yi, M. Hashimoto, D. H. Lu, Z.-X. Shen, K. Ono, H. Kumigashira, S. Tajima, A. Fujimori†
Strongly three-dimensional electronic structure and Fermi Surfaces of $SrFe_2(As_{0.65}P_{0.35})_2$*: Comparison with* $BaFe_2(As_{1-x}P_x)_2$
Phys. Rev. B 89, 184513 (2014)

23. J.J. Lee, B. Moritz, W.S. Lee, M. Yi, C.J. Jia, A. P. Sorini, K. Kudo, Y. Koike, K.J. Zhou, C. Monney, V. Strocov, L. Patthey, T. Schmitt, T. P. Devereaux, Z.-X. Shen†
Charge-orbital-lattice coupling effects in the dd-excitation profile of one dimensional cuprates
Phys. Rev. B 89, 041104(R) (2014)

22. U. Staub, R. A. de Souza, P. Beaud, E.Möhr-Vorobeva, G. Ingold, A. Caviezel, V. Scagnoli, B. Delley, W. F. Schlotter, J. J. Turner, O. Krupin, W.-S. Lee, Y.-D. Chuang, L. Patthey, R. G. Moore, D. Lu, M. Yi, P. S. Kirchmann, M. Trigo, P. Denes, D. Doering, Z. Hussain, Z.-X. Shen, D. Prabhakaran, A. T. Boothroyd, and S. L. Johnson†
Persistence of magnetic order in a highly excited Cu^{2+} *state in CuO*
Phys. Rev. B 89, 220401(R) (2014)

21. T. Yoshida†, S. Ideta, I. Nishi, A. Fujimori, M. Yi, R. G. Moore, S. K. Mo, D.-H. Lu, Z.-X. Shen, Z. Hussain, K. Kihou, P. M. Shirage, H. Kito, C. H. Lee, A. Iyo, H. Eisaki, H. Harima
Orbital character and electron correlation effects on two- and three-dimensional Fermi surfaces in KFe_2As_2 *revealed by angle-resolved photoemission spectroscopy*

Front. Phys. 2, 17 (2014)

20. M. Yi, Y. Zhang, Z.-K. Liu, X. Ding, J.-H. Chu, A.F. Kemper, N. Plonka, B. Moritz, M. Hashimoto, S.-K. Mo, Z. Hussain, T. P. Devereaux, I. R. Fisher, H. H. Wen, Z.-X. Shen†, and D. H. Lu†
Dynamic competition between spin density wave order and superconductivity in underdoped $Ba_{1-x}K_xFe_2As_2$.
Nat. Comm. 5, 3711 (2014)

19. S. de Jong*, R. Kukreja*, C. Trabant, N. Pontius, C. F. Chang, T. Kachel, M. Beye, F. Sorgenfrei, C. H. Back, B. Brauer, W. F. Schlotter, J. J. Turner, O. Krupin, M. Doehler, D. Zhu, M. A. Hossain, A. O. Scherz, D. Fausti, F. Novelli, M. Esposito, W. S. Lee, Y. D. Chuang, D. H. Lu, R. G. Moore, M. Yi, M. Trigo, P. Kirchmann, L. Pathey, M. S. Golden, M. Buchholz, P. Metcalf, F. Parmigiani, W. Wurth, A. Fohlisch, C. Schubler-Langeheine† and H. A. Durr†
Speed Limit of the insulator-metal transition in magnetite
Nat. Mat. 12, 882 (2013)

18. W. S. Lee†, S. Johnston, B. Moritz, J. J. Lee, M. Yi, K. J. Zhou, T. Schmitt, L. Patthey, V. Strocov, K. Kudo, Y. Koike, J. van den Brink, T. P. Devereaux, and Z.-X. Shen
Role of Lattice Coupling in Establishing Electronic and Magnetic Properties in Quasi-One-Dimensional Cuprates
Phys. Rev. Lett. 110, 265502 (2013)

17. Y. D. Chuang, W. S. Lee†, Y. F. Kung, A. P. Sorini, B. Moritz, R. G. Moore, L. Patthey, M. Trigo, D. H. Lu, P. S. Kirchmann, M. Yi, O. Krupin, M. Langner, Y. Zhu, S. Y. Zhou, D. A. Reis, N. Huse, J. S. Robinson, R. A. Kaindl, R. W. Schoenlein, S. L. Johnson, M. Forst, D. Doering, P. Denes, W. F. Schlotter, J. J. Turner, T. Sasagawa, Z. Hussain, Z.-X. Shen†, and T. P. Devereaux†
Real-Time Manifestation of Strongly Coupled Spin and Charge Order Parameters in Stripe-Ordered $La_{1.75}Sr_{0.25}NiO_4$ *Nickelate Crystals Using Time-Resolved Resonant X-Ray Diffraction*
Phys. Rev. Lett. 110, 127404 (2013)

16. M. Yi, D. H. Lu, R. Yu, S. C. Riggs, J.-H. Chu, B. Lv, Z. K. Liu, M. Lu, Y.-T. Cui, M. Hashimoto, S.-K. Mo, Z. Hussain, C. W. Chu, I. R. Fisher, Q. Si, and Z.-X. Shen†
Observation of Temperature-Induced Crossover to an Orbital-Selective Mott Phase in $A_xFe_{2-y}Se_2$ *(A=K,Rb) Superconductors*
Phys. Rev. Lett. 110, 067003 (2013)

15. Z. K. Liu, R.-H. He, D. H. Lu, M. Yi, Y. L. Chen, M. Hashimoto, R. G. Moore, S.-K. Mo, E. A. Nowadnick, J. Hu, T. J. Liu, Z. Q. Mao, T. P. Devereaux, Z. Hussain, and Z.-X. Shen†
Measurement of Coherent Polarons in the Strongly Coupled Antiferromagnetically Ordered Iron-Chalcogenide $Fe_{1.02}Te$ *using Angle-Resolved Photoemission Spectroscopy*
Phys. Rev. Lett. 110, 037003 (2013)

14. W. S. Lee*†, Y. D. Chuang*, R. G. Moore, Y. Zhu, L. Patthey, M. Trigo, D. H. Lu, P. S. Kirchmann, O. Krupin, M. Yi, M. Langner, N. Huse, J. S. Robinson, Y. Chen, S. Y. Zhou, G. Coslovich, B. Huber, D. A. Reis, R. A. Kaindl, R. W. Schoenlein, D. Doering, P. Denes, W. F. Schlotter, J. J. Turner, S. L. Johnson, M. Forst, T. Sasagawa, Y. F. Kung, A. P. Sorini, A. F. Kemper, B. Moritz, T. P. Devereaux, D.-H. Lee, Z.-X. Shen†, and Z. Hussain
Phase Fluctuations and the Absence of Topological Defects in Photo-excited Charge Ordered Nickelate
Nat. Comm. 3, 838 (2012)

13. W. S. Lee, A. P. Sorini, M. Yi, Y. D. Chuang, B. Moritz, W. L. Yang, J.-H. Chu, H. H. Kuo, A. G. Cruz Gonzalez, I. R. Fisher, Z. Hussain, T. P. Devereaux, and Z.-X. Shen†
Resonant enhancement of charge density wave diffraction in the rare-earth tritellurides
Phys. Rev. B 85, 155142 (2012)

12. D. H. Lu†, I. M. Vishik, M. Yi, Y. Chen, R. G. Moore, Z.-X. Shen†

Angle-resolved photoemission studies of quantum materials (invited review)
Annu. Rev. Condens. Matter Phys. 3, 129-167 (2012)

11. M. Yi, D. H. Lu, R. G. Moore, K. Kihou, C.-H. Lee, A. Iyo, H. Eisaki, T. Yoshida, A. Fujimori, and Z.-X. Shen†
Electronic reconstruction through the structural and magnetic transition in detwinned NaFeAs
New J. Phys. 14, 073019 (2012)

10. S. L. Johnson, R. A. de Souza, U. Staub, P. Beaud, E. Möhr-Vorobeva, G. Ingold, A. Caviezel, V. Scagnoli, W. F. Schlotter, J. J. Turner, O. Krupin, W.-S. Lee, Y.-D. Chuang, L. Patthey, R. G. Moore, D. H. Lu, M. Yi, P. S. Kirchmann, M. Trigo, P. Denes, D. Doering, Z. Hussain, Z.-X. Shen, D. Prabhakaran, and A. T. Boothroyd†
Femtosecond Dynamics of the Collinear-to-Spiral Antiferromagnetic Phase Transition in CuO
Phys. Rev. Lett. 108, 037203 (2012)

9. I. Nishi†, M. Ishikado, S. Ideta, W. Malaeb, T. Yoshida, A. Fujimori, Y. Kotani, M. Kubota, K. Ono, M. Yi, D. H. Lu, R. Moore, Z.-X. Shen, A. Iyo, K. Kihou, H. Kito, H. Eisaki, S. Shamoto, and R. Arita
Angle-resolved photoemission spectroscopy study of $PrFeAsO_{0.7}$: Comparison with LaFePO
Phys. Rev. B 84, 014504 (2011)

8. T. Yoshida†, I. Nishi, A. Fujimori, M. Yi, R. G. Moore, D. H. Lu, Z.-X. Shen, K. Kihou, P. M. Shirage, H. Kito, C. H. Lee, A. Iyo, H. Eisaki and H. Harima
Fermi surfaces and quasi-particle band dispersions of the iron pnictides superconductor KFe_2As_2 observed by angle-resolved photoemission spectroscopy
J. Phys. Chem. Solids 72, 465-468 (2011)

7. M. Yi, D. H. Lu, J.-H. Chu, J. G. Analytis, A. P. Sorini, A. F. Kemper, B. Moritz, S.-K. Mo, R. G. Moore, M. Hashimoto, W.-S. Lee, Z. Hussain, T. P. Devereaux, I. R. Fisher, and Z.-X. Shen†
Symmetry breaking orbital anisotropy observed for detwinned $Ba(Fe_{1-x}Co_x)_2As_2$ above the spin density wave transition
Proc Natl Acad Sci 108 (17), 6878-6883 (2011)

6. M. Yi, D. H. Lu, J. G. Analytis, J.-H. Chu, S.-K. Mo, R.-H. He, M. Hashimoto, R. G. Moore, I. I. Mazin, D. J. Singh, Z. Hussain, I. R. Fisher, and Z.-X. Shen†
Unconventional electronic reconstruction in undoped $(Ba,Sr)Fe_2As_2$ across the spin density wave transition
Phys. Rev. B 80, 174510 (2009) (Editors' Suggestion)

5. M. Yi, D. H. Lu, J. G. Analytis, J.-H. Chu, S.-K. Mo, R.-H. He, R. G. Moore, X. J. Zhou, G. F. Chen, J. L. Luo, N. L. Wang, Z. Hussain, D. J. Singh, I. R. Fisher, and Z.-X. Shen†
Electronic structure of the $BaFe_2As_2$ family of iron-pnictide superconductors
Phys. Rev. B 80, 024515 (2009)

4. D. H. Lu, M. Yi, S.-K. Mo, J. G. Analytis, J.-H. Chu, A. S. Erickson, D. J. Singh, Z. Hussain, T. H. Geballe, I. R. Fisher, Z.-X. Shen†
ARPES studies of the electronic structure of LaOFe(P,As) (invited review)
Physica C 469, 452 (2009)

3. D. H. Lu, M. Yi, S.-K. Mo, A. S. Erickson, J. G. Analytis, J.-H. Chu, D. J. Singh, Z. Hussain, T. H. Geballe, I. R. Fisher, Z.-X. Shen†
Electronic structure of the iron-based superconductor LaOFeP
Nature 455, 81 (2008)

2. M. C. Boyer, W. D. Wise, Kamalesh Chatterjee, M. Yi, Takeshi Kondo, T. Takeuchi, H. Ikuta, E. W. Hudson†

Imaging the Two Gaps of the High-T_C Superconductor Pb-$Bi_2Sr_2CuO_{6+\delta}$
Nature Physics, 3, 802 (2007)

1. B. Aubert et al. (BaBar Collaboration)
Branching Fraction Measurements of $B^+ \to \rho^+\gamma$, $B^0 \to \rho^0\gamma$, and $B^0 \to \omega\gamma$
Phys. Rev. Lett. 98, 151802 (2007)

INVITED TALKS

97. New Insights into Quantum Materials: Scattering, Other Probes, and Theory Workshop, William I. Fine Theoretical Physics Institute, University of Minnesota, May 2024
96. Quantum Materials Synthesis workshop, Rice Center for Quantum Materials, Apr. 2024
95. Extreme Quantum Materials Alliance Spring School, Rice University, Mar. 2024
94. Aspen Winter Conference: Quantum Materials in the Quantum Information Era: From Theory to Experiment, Aspen, Feb. 2024
93. Conference on Strange Metals in Quantum Materials and Quantum Emulators, Physikzentrum Bad Honnef, Dec. 2023
92. Condensed Matter Seminar, Washington University in St. Louis, Dec. 2023
91. MRS Fall Meeting, Boston, Dec. 2023
90. Recent Progress in Quantum Materials Workshop, EPiQS-Samsung Workshop, Hawaii, Oct. 2023
89. Physics Colloquium, Rice University, Oct. 2024
88. Chinese Physical Society Meeting, CPS-APS Session, virtual, Aug. 2023
87. Condensed Matter Seminar, Paul Scherrer Institute, Switzerland, Aug. 2023
86. 4th PSI Condensed Matter Summer Camp, Zuoz, Switzerland, Aug. 2023
85. 2023 Quantum Materials Young Investigators Workshop, Oak Ridge National Laboratory, Jun. 2023
84. Rice-Europe Workshop on Future Directions in Spintronics and Quantum Materials, Paris, May 2023
83. CIFAR Quantum Materials Program Spring Meeting, Montreal, Canada, May 2023
82. Condensed Matter Seminar, Hong Kong University of Science and Technology, Apr. 2023
81. Frontiers in Condensed Matter Physics, Columbia University zoom, Apr. 2023
80. MRS Spring Meeting, San Francisco, Apr. 2023
79. KITP workshop on Topology, Symmetry, Interactions in Crystals, UCSB, Apr. 2023
78. APS March Meeting, Las Vegas, March 2023
77. Condensed Matter Seminar, University of Maryland College Park, Feb. 2023
76. Condensed Matter Seminar, Johns Hopkins University, Feb. 2023
75. DMREF Workshop: Quasi-One-Dimensional Topological Quantum Materials, virtual, Jan. 2023
74. Conference on Spectroscopies of Novel Superconductors, India (remote), Dec. 2022
73. UBC-RCQM Workshop, virtual Dec. 2022
72. Condensed Matter Seminar, University of Connecticut, Dec. 2022

71. Condensed Matter Seminar, University of Michigan, Nov. 2022
70. RCQM Workshop on Strange Metals and Emergent Phases in Materials and Structures, Rice, Oct. 2022
69. Pan-Pacific Conference on Topology and Correlation in Exotic Materials, Moorea, Oct. 2022
68. 12th Conference on Magnetic and Superconducting Materials, Duisburg, Germany, Aug. 2022
67. The 15th Asia Pacific Physics Conference, South Korea (virtual), Aug. 2022
66. 13th International Conference on Materials and Mechanisms of Superconductivity and High Temperature Superconductors, Vancouver, Jul. 2022
65. Summer School on exotic superconductivity, Cargese, Jun. 2022
64. Workshop on New Development in Topological Correlated Materials, U Penn, Jun 2022
63. NSLS-II User Meeting, Brookhaven National Lab, May 2022
62. Condensed Matter Seminar, ORNL, May 2022
61. Condensed Matter Seminar, MIT, May 2022
60. Aspen Winter Conference: New directions in strong correlation physics: From strange metals to topological superconductivity, Aspen, Jan. 2022
59. Condensed Matter Seminar, University of California, Los Angeles, Dec. 2021
58. QMSC at CLS: Workshop on New Developments in Fe-based Superconductivity, Dec. 2021
57. 3rd RCQM-UBC Workshop on Quantum Materials, virtual, Dec. 2021
56. RCQM Workshop on Topological Materials and Electron Correlations, Rice University, Nov. 2021
55. International Conference on Strongly Correlated Electron Systems, virtual, Sep. 2021
54. 3rd Quantum Matter Workshop, Shanghai Jiao Tong University (virtual), Aug. 2021
53. Clark University Physics Colloquium, May 2021
52. Rutgers Condensed Matter Seminar, May 2021
51. MRS Spring Meeting, April 2021
50. APS March Meeting, March 2021
49. Society for Science at User Research Facilities Annual Meeting, Nov. 2020.
48. Spectroscopy of Strongly Correlated Electron Systems Workshop, Oct. 2020.
47. University of Cincinnati Condensed Matter Seminar, Oct. 2020.
46. University of British Columbia Quantum Matter Institute Seminar, Sep. 2020.
45. Neutrons and Complementary Techniques for Quantum Materials Workshop, Oak Ridge National Laboratory, Aug. 2020.
44. Condensed Matter Seminar, Tsung Dao Lee Institute, Shanghai Jiao Tong University, Aug. 2020.
43. University of Houston, Physics Colloquium, Feb. 2020.
42. Texas A&M University, Condensed Matter Seminar, Nov. 2019.
41. Elihu Abrahmas Fest: New Horizons in disordered and interacting Quantum Materials, Rutgers University, Oct. 2019.

40. Itinerant Magnetism and Superconductivity in Intermetallic Compounds Workshop, Dresden, Germany, Sep. 2019.

39. International Workshop on Strong Correlations and Angle-Resolved Photoemission Spectroscopy CORPES, Oxford, England, Jul. 2019.

38. Gordon Research Conference, Les Diablerets, Switzerland, May 2019.

37. CNLS 39th Annual Conference on Strongly Correlated Quantum Materials, Santa Fe, NM, Apr. 2019.

36. Condensed Matter Seminar, University of Minnesota, Apr. 2019.

35. *Orbital-selectivity in iron chalcogenide superconductors*
"APS March Meeting, Boston, Mar. 2019.

34. *The Hidden World of High Temperature Superconductors*
"What Physicists Do" Public Lecture Series, Sonoma State University, Nov. 2018.

33. *The Hidden World of High Temperature Superconductors*
2018 SSRL/LCLS Users' Meeting, SLAC National Accelerator Laboratory, Sep. 2018.

32. *Spectral Evidence for Emergent Order in* $Ba_{1-x}Na_xFe_2As_2$
12th International Conference on Materials and Mechanisms of Superconductivity (M^2S), Beijing China, Aug. 2018.

31. *Fe(Te,Se)–a rich prose of electron correlations*
Special Seminar, Tsinghua University, China, Aug. 2018.

30. *Fe(Te,Se)–a rich prose of electron correlations*
Special Seminar, Fudan University, China, Aug. 2018.

29. *Fantastic Emergent Orders and Where to Find Them*
Special Colloquium, Penn State University, Apr. 2018.

28. *Finding Charge Order in Iron Pnictides*
APS March Meeting, Los Angeles CA, Mar. 2018.

27. *Fantastic Emergent Orders and Where to Find Them*
Special Colloquium, UC Irvine, Feb. 2018.

26. *Fantastic Emergent Orders and Where to Find Them*
Special Colloquium, UT Austin, Feb. 2018.

25. *Fantastic Emergent Orders and Where to Find Them*
Special Colloquium, University of Illinois Urbana Champaign, Feb. 2018.

24. *Fantastic Emergent Orders and Where to Find Them*
Special Colloquium, UC San Diego, Jan. 2018.

23. *Fantastic Emergent Orders and Where to Find Them*
Special Colloquium, Princeton University, Jan. 2018.

22. *Fantastic Emergent Orders and Where to Find Them*
Special Colloquium, Boston College, Jan. 2018.

21. *Emergent Orders in Iron Pnictides*
High-T_C Superconductivity, Aspen CO, Jan. 2018.

20. *Fantastic Emergent Orders and Where to Find Them*
Special Colloquium, Santa Clara University, Jan. 2018.

19. *Fantastic Emergent Orders and Where to Find Them*
Special Colloquium, Rice University, Dec. 2017.

18. *Fantastic Emergent Orders and Where to Find Them*
Special Colloquium, University of Notre Dame, Nov. 2017.

17. *Let there be light: my homage to BL10*
ALS User Meeting, Berkeley CA, Oct. 2017.

16. *Emergent Charge Order in an Iron Pnictide*
ALS User Meeting, Berkeley CA, Oct. 2017.

15. *Finding Orders in Iron-based Superconductors*
SPICE-Workshop Topology Matters, Mainz, Germany, Jul. 2017.

14. *Emergent Electronic Orders in Iron Pnictides*
University of Heidelberg, Germany, Jul. 2017.

13. *Emergent Electronic Orders in Iron Pnictides*
Karlsruhe Institute of Technology, Germany, Jul. 2017.

12. *Emergent Electronic Orders in Iron Pnictides*
The 9th Joint Meeting of Chinese Physicists Worldwide, Beijing, China, Jul. 2017.

11. *Emergent Electronic Orders in Iron Pnictides*
Institute of Physics, Chinese Academy of Sciences, Beijing, China, Jul. 2017.

10. *Emergent Electronic Orders in Iron Pnictides*
Beijing Normal University, Beijing, China, Jul. 2017.

9. *Role of Electron Correlations and Orbitals in Iron-based Superconductors*
APS March Meeting, Baltimore MD, Mar. 2016.

8. *Strong Correlation Effects in Iron Chalcogenide Superconductors*
Condensed Matter Seminar 290K, UC Berkeley, Berkeley CA, Nov. 2015.

7. *Strong Correlation Effects in Iron Chalcogenide Superconductors*
Workshop on Strongly Correlated Electron Materials, Rice University, Houston TX, Nov. 2015.

6. *Strong Correlation Effects in Iron Chalcogenide Superconductors*
Gordon Research Seminar, Chinese University of Hong Kong, Hong Kong, China, May 2015.

5. *Electron Correlation Trends in Iron-based superconductors*
Strong Correlations and Unconventional Superconductivity Workshop, UC Santa Barbara-KITP, Santa Barbara CA, Sep. 2014.

4. *Electronic Interplay of Spin Density Wave, Nematicity, and Superconductivity in Underdoped Iron Pnictides*
Spectroscopy on Novel Superconductors, Berkeley CA, Jul. 2013.

3. *The Mysterious Electronic Phases in Iron-Based High Temperature Superconductors*
Physics Colloquium, Santa Clara University, May 2013.

2. *Symmetry breaking orbital anisotropy on detwinned* $Ba(Fe_{1-x}Co_x)_2As_2$
Stanford-Yonsei Workshop, Stanford Synchrotron Radiation Lightsource, Jan. 2011.

1. *Symmetry breaking orbital anisotropy on detwinned* $Ba(Fe_{1-x}Co_x)_2As_2$
Recent Progress on Spectroscopies and High-T_C Superconductors Workshop, Sendai Japan, Aug. 2010.

TEACHING ACTIVITIES

Instructor, PHYS 101, Mechanics, Rice University	Fall 2020-2024
Lecturer, PHYS 112, Honors Electricity and Magnetism, Rice University	Spring 2020-2024
Lecturer, PHYS 600, Photon Science for Quantum Materials, Rice University	Spring 2019
Co-teaching, Physics 7b Physics for Scientists and Engineers, UC Berkeley	Fall 2018
Teaching Assistant, Physics 43 Electricity and Magnetism, Stanford	Spring 2012
Teaching Assistant, Physics 43 Electricity and Magnetism, Stanford	Spring 2008
Teaching Assistant, Physics 45 Light and Heat, Stanford	Autumn 2007
Undergraduate Tutor, 8.02 Electromagnetism course, MIT	Spring 2005

PROFESSIONAL ACTIVITIES

- ARPES Program Triennial Review Panel, Advanced Light Source 2023
- Users' Executive Committee, Advanced Light Source 2020-2023

  Member (2020), Vice Chair (2021), Chair (2022), Past Chair (2023)
- Member, Scientific Advisory Committee, Advanced Light Source 2022
- Member, Proposal Review Committee, Canadian Light Source 2022-present
- Beamtime proposal reviewer, Stanford Synchrotron Radiation Lightsource 2019-present
- Member, QuantEmX Committee 2022-present
- Associate Editor, Superconducting Materials, *Frontiers in Electronic Materials* 2021-present
- Advisory Board, *Cell Reports Physical Science* 2019-present
- Editorial Board member, *Communications Physics* 2018-present
- Reviewer for journals: *Physical Review Letters*, *Physical Review X*, *Physical Review B*, *Nature*, *Nature Physics*, *Nature Materials*, *Nature Communications*, *Nature Reviews Physics*, *npj Quantum Materials*, *Communications Physics*, *Scientific Reports*, *Proceedings of the National Academy of Sciences*, *New Journal of Physics*, *Nano Letters*, *Science Bulletin*, *Review of Scientific Instruments*, *Chemistry of Materials*, *Materials Today Physics*
- Proposal Reviewer for the National Science Foundation, the Department Of Energy, the Department of Defense, and the Moore Foundation 2022-present
- APS Division of Materials Physics (DMP) March Meeting Focus Session lead-organizer, APS March Meeting 2021
- Session chair, *American Physical Society March Meeting* 2016-present
- Selection panel for L'Oréal USA For Women In Science Fellowship 2018-present
- Selection panel for the Communications Physics Early Career Travel Grant 2018
- Member, *American Physical Society* 2007-present

OUTREACH ACTIVITIES

- Panelist, Reach for the Stars, 2022, 2023
- Presentation to Women in Astronomy and Physics Lecture Series (WAPHLS), Feb 2022
- Panelist on Rice University's Sexism in Academia Panel organized by grad STRIVE, 2021
- Panelist on Diversity+Equity+Inclusion session at the ALS User Meeting, 2020

- Faculty Associate, Design-Connect-Create, Rice University, 2019
  hands-on summer camp for high school girls in Houston area to be introduced to physics
- Founder and Organizer, Cal Moms, UC Berkeley, 2015-2018
  network and support group for graduate students and postdocs who are also moms on balancing family and career
- Volunteer, Berkeley Lab Adventure Zone in Elementary Science, Lawrence Berkeley Lab, 2015-2017
  leading on-site scientific experiments for fifth graders
- Invited speaker, Society of Physics Students, University of Central Arkansas, 2016
  giving a seminar introducing superconductors to undergraduate students broadcasted on google hangout
- Volunteer, Stanford Splash, 2008
  creating and teaching enrichment classes for middle school and high school kids
- Tutor, MIT Office of Minority Education Tutorial Services Room, MIT, 2006-2007
  tutoring undergraduate physics to minority students