Stanford

Thomas Devereaux

Professor of Photon Science, of Materials Science and Engineering and Senior Fellow at the Precourt Institute for Energy

Photon Science Directorate

Bio

BIO

Professor Devereaux received his Ph.D. in Physics from the University of Oregon in 1991, M.S. from University of Oregon in 1988, and B.S from New York University in 1986.

Professor Devereaux is a professor in Materials Science & Engineering and Photon Science at SLAC National Accelerator Laboratory and Stanford University, and a Senior Fellow of the Precourt Institute for Energy. He was formerly the Director of the Stanford Institute for Materials and Energy Sciences (SIMES) from 2011-2020.

Professor Devereaux was a Post-doctoral Fellow at the Max Planck Institut, Stuttgart, (1991-1993), a Post-doctoral Fellow at the University of California, Davis, CA, (1993-1996), an Assistant Professor at The George Washington University, Washington, DC, (1996-1999), and an Associate Professor (1999-2006) and Professor (2006-2007) at the University of Waterloo, Waterloo, ON, Canada

His main research interests lie in the areas of theoretical condensed matter physics and computational physics. His research effort focuses on using the tools of computational physics to understand quantum materials. The goal of his research is to understand equilibrium and ultrafast non-equilibrium electron dynamics via a combination of analytical theory and numerical simulations to provide insight into materials of relevance to energy science. His group carries out numerical simulations on SIMES' high-performance compute cluster, the National Energy Research Scientific Computing Center (NERSC), and other US computational facilities. The specific focus of the group is the development of numerical methods and theories of photon-based spectroscopies of strongly correlated quantum materials and novel materials for energy storage.

ACADEMIC APPOINTMENTS

- Professor, Photon Science Directorate
- Senior Fellow, Precourt Institute for Energy
- Professor, Materials Science and Engineering
- Principal Investigator, Stanford Institute for Materials and Energy Sciences

HONORS AND AWARDS

- Humboldt Prize, Alexander von Humboldt Foundation (2026)
- Fellow, American Association for the Advancement of Science (2024)
- Fellow, American Physical Society (2008)

- Scientist Research Fellowship, Embassy of France (2005 & 2006)
- Premier's Research Excellence Award, Province of Ontario (2003)
- Research Fellowship, Alexander von Humboldt Foundation (2002-2006)
- Junior Scholar Incentive Award, George Washington University (1998)
- Fellowship, U. S. Department of Education (1989-1991)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Chair, Scientific Advisory Board, Advanced Light Source, Lawrence Berkeley Lab (2024 - present)
- Editorial Review Board Member, Physical Review X (2024 - present)
- Member at Large, Division of Condensed Matter Physics, American Physical Society (2023 - present)
- Scientific Advisory Board, Max Planck Institute for Chemical Physics of Solids, Dresden (2020 - present)
- Materials Capability Review, Los Alamos National Lab (2016 - 2020)
- Scientific Advisory Board Member, Advanced Light Source, Lawrence Berkeley Lab (2014 - present)
- Academic Council Committee on Research, Stanford University (2014 - 2017)
- Advisory Committee, Institute of Physics and Applied Physics, Yonsei University, South Korea (2007 - 2011)

PROFESSIONAL EDUCATION

- Ph.D., University of Oregon , Physics (1991)
- M.S., University of Oregon , Physics (1988)
- B.S., New York University , Mathematics & Physics (1986)

LINKS

- Devereaux Group: https://devereauxgroup.stanford.edu/
- Stanford Institute for Materials and Energy Sciences: http://simes.stanford.edu/
- SLAC National Accelerator Laboratory: https://www6.slac.stanford.edu/
- Precourt Institute for Energy: https://energy.stanford.edu

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My main research interests lie in the areas of theoretical condensed matter physics and computational physics. My research effort focuses on using the tools of computational physics to understand quantum materials. Fortunately, we are poised in an excellent position as the speed and cost of computers have allowed us to tackle heretofore unaddressed problems involving interacting systems. The goal of my research is to understand electron dynamics via a combination of analytical theory and numerical simulations to provide insight into materials of relevance to energy science. My group carries out numerical simulations on SIMES' high-performance supercomputer and US and Canadian computational facilities. The specific focus of my group is the development of numerical methods and theories of photon-based spectroscopies of strongly correlated materials.

Teaching

COURSES

2025-26

- Quantum Mechanics for Materials Science: MATSCI 185 (Win)
- Quantum Mechanics for Materials Science: MATSCI 215 (Win)

2024-25

- Quantum Mechanics for Materials Science: MATSCI 185 (Win)
- Quantum Mechanics for Materials Science: MATSCI 215 (Win)

2023-24

- Quantum Mechanics for Materials Science: MATSCI 185 (Win)
- Quantum Mechanics for Materials Science: MATSCI 215 (Win)

2022-23

- Condensed Matter Seminar: APPPHYS 470 (Aut, Win, Spr)
- Quantum Mechanics for Materials Science: MATSCI 185 (Win)
- Quantum Mechanics for Materials Science: MATSCI 215 (Win)
- Statistical Mechanics for Materials & Materials Chemistry: MATSCI 310 (Spr)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Elena Corbae, Jay Qu, Ruohan Wang

Postdoctoral Faculty Sponsor

Shengtao Jiang, Chris Parzyck, Shizhou Xu, Emily Zhang

Doctoral Dissertation Advisor (AC)

Emma Cuddy, Rebekah Jin, Wen-Shin Lu, Phoenix Ma, Rong Zhang, Amelia Zhao, Sijia Zhao

Doctoral Dissertation Co-Advisor (AC)

Martin Gonzalez, Shashwat Viswanath

Publications

PUBLICATIONS

- **Microscopic theory for electron-phonon coupling in twisted bilayer graphene** *PHYSICAL REVIEW B*
  Zhu, Z., Devereaux, T. P.
  2026; 113 (3)
- **Effects of the Next-Nearest-Neighbor Hopping on the Low-Dimensional Hubbard Model: Ferromagnetism, Antiferromagnetism, and Superconductivity.** *Journal of physics. Condensed matter : an Institute of Physics journal*
  Yang, L., Feiguin, A. E., Devereaux, T. P., Dagotto, E.
  2025
- **Enhanced superconducting correlations in the Emery model and its connections to strange metallic transport and normal state coherence** *PHYSICAL REVIEW B*
  Zhao, S., Zhang, R., Wang, W. O., Ding, J. K., Liu, T., Moritz, B., Huang, E. W., Devereaux, T. P.
  2025; 112 (22)
- **Nonmonotonic Band Flattening near the Magic Angle of Twisted Bilayer MoTe2** *PHYSICAL REVIEW X*
  Deng, Y., Holtzmann, W., Zhu, Z., Zaklama, T., Majchrzak, P., Taniguchi, T., Watanabe, K., Hashimoto, M., Lu, D., Jozwiak, C., Bostwick, A., Rotenberg, E., Fu, et al
  2025; 15 (4)
- **Chiral electronic excitations and strong electron-phonon coupling to Weyl fermions in the kagome semimetal Co3Sn2S2** *PHYSICAL REVIEW B*
  He, G., Kute, M., Xu, Z., Peis, L., Stumberger, R., Baum, A., Jost, D., Been, E., Moritz, B., Shen, J., Shi, Y., Devereaux, T. P., Hackl, et al

2025; 112 (21)

- **Proximity-induced nodal metal in an extremely underdoped CuO2 plane in triple-layer cuprates.** *Nature communications*
  Ideta, S. I., Adachi, S., Noji, T., Yamaguchi, S., Sasaki, N., Ishida, S., Uchida, S. I., Fujii, T., Watanabe, T., Wang, W. O., Moritz, B., Devereaux, T. P., Arita, et al
  2025; 16 (1): 9470
- **Local microwave sensing of excitons and their electrical environment.** *Nature communications*
  Ji, Z., Barber, M. E., Zhu, Z., Kometter, C. R., Yu, J., Watanabe, K., Taniguchi, T., Liu, M., Devereaux, T. P., Feldman, B. E., Shen, Z.
  2025; 16 (1): 9236
- **A formal FeIII/V redox couple in an intercalation electrode.** *Nature materials*
  Ramachandran, H., Mu, E. W., Lomeli, E. G., Braun, A., Goto, M., Hsu, K. H., Liu, J., Jiang, Z., Lim, K., Busse, G. M., Moritz, B., Kas, J. J., Vinson, et al
  2025
- **Intrinsic Thermal Hall Effect in Mott Insulators.** *Physical review letters*
  Ding, J. K., Zhang, E. Z., Wang, W. O., Cookmeyer, T., Moritz, B., Kim, Y. B., Devereaux, T. P.
  2025; 134 (25): 256501
- **Intrinsic Thermal Hall Effect in Mott Insulators** *PHYSICAL REVIEW LETTERS*
  Ding, J. K., Zhang, E. Z., Wang, W. O., Cookmeyer, T., Moritz, B., Kim, Y., Devereaux, T. P.
  2025; 134 (25)
- **Orbital inversion and emergent lattice dynamics in infinite layer CaCoO_{<bold>2</bold>}** *NPJ QUANTUM MATERIALS*
  Jost, D., Lomeli, E. G., Kim, W., Been, E. M., Rossi, M., Agrestini, S., Zhou, K., Jia, C., Moritz, B., Shen, Z., Hwang, H. Y., Devereaux, T. P., Lee, et al
  2025; 10 (1)
- **The significance of "stripes" in the physics of the cuprates, the Hubbard model, and other highly correlated electronic systems** *PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS*
  Devereaux, T. P., Kivelson, S. A.
  2025; 632
- **Doping Dependence of 2-Spinon Excitations in the Doped 1D Cuprate Ba_{2}CuO_{3+δ}.** *Physical review letters*
  Li, J., Jost, D., Tang, T., Wang, R., Zhong, Y., Chen, Z., Garcia-Fernandez, M., Pelliciari, J., Bisogni, V., Moritz, B., Zhou, K., Wang, Y., Devereaux, et al
  2025; 134 (14): 146501
- **Electronic Structure of the Alternating Monolayer-Trilayer Phase of La_{3}Ni_{2}O_{7}.** *Physical review letters*
  Abadi, S., Xu, K. J., Lomeli, E. G., Puphal, P., Isobe, M., Zhong, Y., Fedorov, A. V., Mo, S. K., Hashimoto, M., Lu, D. H., Moritz, B., Keimer, B., Devereaux, et al
  2025; 134 (12): 126001
- **Electronic Structure of the Alternating Monolayer-Trilayer Phase of La3Ni2O7** *PHYSICAL REVIEW LETTERS*
  Abadi, S., Xu, K., Lomeli, E. G., Puphal, P., Isobe, M., Zhong, Y., Fedorov, A., Mo, S., Hashimoto, M., Lu, D., Moritz, B., Keimer, B., Devereaux, et al
  2025; 134 (12)
- **Time-Resolved X-Ray Spectroscopy from the Atomic Orbital Ground State Up** *PHYSICAL REVIEW X*
  Jost, D., Lomeli, E. G., Tang, T., Kas, J. J., Rehr, J. J., Lee, W., Jiang, H., Moritz, B., Devereaux, T. P.
  2025; 15 (1)
- **Synthesis of Layered Gold Tellurides AuSbTe and Au2Te3 and Their Semiconducting and Metallic Behavior.** *Inorganic chemistry*
  Pappas, E. A., Zhang, R., Peng, C., Busch, R. T., Zuo, J. M., Devereaux, T. P., Shoemaker, D. P.
  2025
- **Detection of chiral spin fluctuations driven by frustration in Mott insulators** *Phys. Rev. B*
  Hsu, K. H., Jia, C., Zhang, E. Z., Jost, D., Moritz, B., Hackl, R., Devereaux, T. P.
  2025; 111 (20)
- **Colossal magnetoresistance from spin-polarized polarons in an Ising system.** *Proceedings of the National Academy of Sciences of the United States of America*

Li, Y. F., Been, E. M., Balguri, S., Jia, C. J., Mahendru, M. B., Wang, Z. C., Cui, Y., Chen, S. D., Hashimoto, M., Lu, D. H., Moritz, B., Zaanen, J., Tafti, et al
2024; 121 (50): e2409846121

- **High-pressure characterization of Ag₃AuTe₂: Implications for strain-induced band tuning** *APPLIED PHYSICS LETTERS*
  Won, J., Zhang, R., Peng, C., Kumar, R., Gebre, M. S., Popov, D., Hemley, R. J., Bradlyn, B., Devereaux, T. P., Shoemaker, D. P.
  2024; 125 (21)
- **Particle-Hole Asymmetric Ferromagnetism and Spin Textures in the Triangular Hubbard-Hofstadter Model** *PHYSICAL REVIEW X*
  Ding, J. K., Yang, L., Wang, W. O., Zhu, Z., Peng, C., Mai, P., Huang, E. W., Moritz, B., Phillips, P. W., Feldman, B. E., Devereaux, T. P.
  2024; 14 (4)
- **Enhanced Pair-Density-Wave Vertices in a Bilayer Hubbard Model at Half Filling.** *Physical review letters*
  Liu, F., Huang, X. X., Huang, E. W., Moritz, B., Devereaux, T. P.
  2024; 133 (15): 156503
- **Enhanced Pair-Density-Wave Vertices in a Bilayer Hubbard Model at Half Filling** *PHYSICAL REVIEW LETTERS*
  Liu, F., Huang, X., Huang, E. W., Moritz, B., Devereaux, T. P.
  2024; 133 (15)
- **Influence of extended interactions on spin dynamics in one-dimensional cuprates** *PHYSICAL REVIEW B*
  Tang, T., Jost, D., Moritz, B., Devereaux, T. P.
  2024; 110 (16)
- **Predicting Reactivity and Passivation of Solid-State Battery Interfaces.** *ACS applied materials & interfaces*
  Lomeli, E. G., Ransom, B., Ramdas, A., Jost, D., Moritz, B., Sendek, A. D., Reed, E. J., Devereaux, T. P.
  2024
- **Molecular geometry specific Monte Carlo simulation of the efficacy of diamond crystal formation from diamondoids.** *Communications chemistry*
  Tang, T., Park, S., Devereaux, T. P., Lin, Y., Jia, C.
  2024; 7 (1): 194
- **Improving the creation of SiV centers in diamond via sub-μs pulsed annealing treatment.** *Nature communications*
  Tzeng, Y. K., Ke, F., Jia, C., Liu, Y., Park, S., Han, M., Frost, M., Cai, X., Mao, W. L., Ewing, R. C., Cui, Y., Devereaux, T. P., Lin, et al
  2024; 15 (1): 7251
- **Anomalous normal-state gap in an electron-doped cuprate.** *Science (New York, N.Y.)*
  Xu, K. J., He, J., Chen, S. D., He, Y., Abadi, S. N., Rotundu, C. R., Lee, Y. S., Lu, D. H., Guo, Q., Tjernberg, O., Devereaux, T. P., Lee, D. H., Hashimoto, et al
  2024; 385 (6710): 796-800
- **Recovery of a Luther-Emery phase in the three-band Hubbard ladder with longer-range hopping** *PHYSICAL REVIEW B*
  Yang, L., Devereaux, T. P., Jiang, H.
  2024; 110 (1)
- **Emergence of antiferromagnetic correlations and Kondolike features in a model for infinite layer nickelates** *NPJ QUANTUM MATERIALS*
  Liu, F., Peng, C., Huang, E. W., Moritz, B., Jia, C., Devereaux, T. P.
  2024; 9 (1)
- **Giant Terahertz Birefringence in an Ultrathin Anisotropic Semimetal.** *Nano letters*
  Sie, E. J., Othman, M. A., Nyby, C. M., Pemmaraju, D., Garcia, C. A., Wang, Y., Guzelturk, B., Xia, C., Xiao, J., Poletayev, A., Ofori-Okai, B. K., Hoffmann, M. C., Park, et al
  2024
- **Anharmonic strong-coupling effects at the origin of the charge density wave in CsV3Sb5.** *Nature communications*
  He, G., Peis, L., Cuddy, E. F., Zhao, Z., Li, D., Zhang, Y., Stumberger, R., Moritz, B., Yang, H., Gao, H., Devereaux, T. P., Hackl, R.
  2024; 15 (1): 1895
- **Ground-state phase diagram and superconductivity of the doped Hubbard model on six-leg square cylinders** *PHYSICAL REVIEW B*

Jiang, Y., Devereauz, T. P., Jiang, H.
2024; 109 (8)

- **Collective Nature of Orbital Excitations in Layered Cuprates in the Absence of Apical Oxygens.** *Physical review letters*
  Martinelli, L., Wohlfeld, K., Pelliciari, J., Arpaia, R., Brookes, N. B., Di Castro, D., Fernandez, M. G., Kang, M., Krockenberger, Y., Kummer, K., McNally, D. E., Paris, E., Schmitt, et al
  2024; 132 (6): 066004
- **Charge order and superconductivity in a two-band model for infinite-layer nickelates** *PHYSICAL REVIEW B*
  Peng, C., Jiang, H., Moritz, B., Devereaux, T. P., Jia, C.
  2023; 108 (24)
- **Bogoliubov quasiparticle on the gossamer Fermi surface in electron-doped cuprates** *NATURE PHYSICS*
  Xu, K., Guo, Q., Hashimoto, M., Li, Z., Chen, S., He, J., He, Y., Li, C., Berntsen, M. H., Rotundu, C. R., Lee, Y. S., Devereaux, T. P., Rydh, et al
  2023; 19 (12): 1834-+
- **The Wiedemann-Franz law in doped Mott insulators without quasiparticles.** *Science (New York, N.Y.)*
  Wang, W. O., Ding, J. K., Schattner, Y., Huang, E. W., Moritz, B., Devereaux, T. P.
  2023; 382 (6674): 1070-1073
- **Proximate spin liquid and fractionalization in the triangular antiferromagnet KYbSe₂** *NATURE PHYSICS*
  Scheie, A. O., Ghioldi, E. A., Xing, J., Paddison, J. M., Sherman, N. E., Dupont, M., Sanjeewa, L. D., Lee, S., Woods, A. J., Abernathy, D., Pajerowski, D. M., Williams, T. J., Zhang, et al
  2023
- **Quantitative assessment of the universal thermopower in the Hubbard model.** *Nature communications*
  Wang, W. O., Ding, J. K., Huang, E. W., Moritz, B., Devereaux, T. P.
  2023; 14 (1): 7064
- **Angle-resolved pair photoemission theory for correlated electrons** *PHYSICAL REVIEW B*
  Devereaux, T. P., Claassen, M., Huang, X., Zaletel, M., Moore, J. E., Morr, D., Mahmood, F., Abbamonte, P., Shen, Z.
  2023; 108 (6)
- **Bogoliubov quasiparticle on the gossamer Fermi surface in electron-doped cuprates** *NATURE PHYSICS*
  Xu, K., Guo, Q., Hashimoto, M., Li, Z., Chen, S., He, J., He, Y., Li, C., Berntsen, M. H., Rotundu, C. R., Lee, Y. S., Devereaux, T. P., Rydh, et al
  2023
- **Ingredients of strong interactions in cuprates** *PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS*
  Shen, Z., Devereaux, T.
  2023; 613
- **From Stoner to local moment magnetism in atomically thin Cr2Te3.** *Nature communications*
  Zhong, Y., Peng, C., Huang, H., Guan, D., Hwang, J., Hsu, K. H., Hu, Y., Jia, C., Moritz, B., Lu, D., Lee, J. S., Jia, J. F., Devereaux, et al
  2023; 14 (1): 5340
- **Publisher Correction: Geometric frustration of Jahn-Teller order in the infinite-layer lattice.** *Nature*
  Kim, W. J., Smeaton, M. A., Jia, C., Goodge, B. H., Cho, B. G., Lee, K., Osada, M., Jost, D., Ievlev, A. V., Moritz, B., Kourkoutis, L. F., Devereaux, T. P., Hwang, et al
  2023
- **Traces of electron-phonon coupling in one-dimensional cuprates.** *Nature communications*
  Tang, T., Moritz, B., Peng, C., Shen, Z. X., Devereaux, T. P.
  2023; 14 (1): 3129
- **Effects of rare-earth magnetism on the superconducting upper critical field in infinite-layer nickelates.** *Science advances*
  Wang, B. Y., Wang, T. C., Hsu, Y. T., Osada, M., Lee, K., Jia, C., Duffy, C., Li, D., Fowlie, J., Beasley, M. R., Devereaux, T. P., Fisher, I. R., Hussey, et al
  2023; 9 (20): eadf6655
- **Enhanced superconductivity by near-neighbor attraction in the doped extended Hubbard model** *PHYSICAL REVIEW B*
  Peng, C., Wang, Y., Wen, J., Lee, Y. S., Devereaux, T. P., Jiang, H.

2023; 107 (20)

- **Reversal of spin-polarization near the Fermi level of the Rashba semiconductor BiTeCl** *NPJ QUANTUM MATERIALS*
  Qu, J., Han, X., Sakamoto, S., Jia, C. J., Liu, J., Li, H., Guan, D., Zeng, Y., Schuler, M., Kirchmann, P. S., Moritz, B., Hussain, Z., Devereaux, et al
  2023; 8 (1)
- **Signatures of the exciton gas phase and its condensation in monolayer 1T-ZrTe2.** *Nature communications*
  Song, Y., Jia, C., Xiong, H., Wang, B., Jiang, Z., Huang, K., Hwang, J., Li, Z., Hwang, C., Liu, Z., Shen, D., Sobota, J. A., Kirchmann, et al
  2023; 14 (1): 1116
- **Geometric frustration of Jahn-Teller order in the infinite-layer lattice.** *Nature*
  Kim, W. J., Smeaton, M. A., Jia, C., Goodge, B. H., Cho, B., Lee, K., Osada, M., Jost, D., Ievlev, A. V., Moritz, B., Kourkoutis, L. F., Devereaux, T. P., Hwang, et al
  2023
- **Fluctuating intertwined stripes in the strange metal regime of the Hubbard model br** *PHYSICAL REVIEW B*
  Huang, E. W., Liu, T., Wang, W. O., Jiang, H., Mai, P., Maier, T. A., Johnston, S., Moritz, B., Devereaux, T. P.
  2023; 107 (8)
- **Identification of a characteristic doping for charge order phenomena in Bi-2212 cuprates via RIXS** *PHYSICAL REVIEW B*
  Lu, H., Hashimoto, M., Chen, S., Ishida, S., Song, D., Eisaki, H., Nag, A., Garcia-Fernandez, M., Arpaia, R., Ghiringhelli, G., Braicovich, L., Zaanen, J., Moritz, et al
  2022; 106 (15)
- **Spectra of a gapped quantum spin liquid with a strong chiral excitation on the triangular lattice** *PHYSICAL REVIEW B*
  Tang, T., Moritz, B., Devereaux, T. P.
  2022; 106 (6)
- **Thermodynamics of correlated electrons in a magnetic field** *COMMUNICATIONS PHYSICS*
  Ding, J. K., Wang, W. O., Moritz, B., Schattner, Y., Huang, E. W., Devereaux, T. P.
  2022; 5 (1)
- **A broken translational symmetry state in an infinite-layer nickelate** *NATURE PHYSICS*
  Rossi, M., Osada, M., Choi, J., Agrestini, S., Jost, D., Lee, Y., Lu, H., Wang, B., Lee, K., Nag, A., Chuang, Y., Kuo, C., Lee, et al
  2022
- **Electronic structure of superconducting nickelates probed by resonant photoemission spectroscopy** *MATTER*
  Chen, Z., Osada, M., Li, D., Been, E. M., Chen, S., Hashimoto, M., Lu, D., Mo, S., Lee, K., Wang, B., Rodolakis, F., McChesney, J. L., Jia, et al
  2022; 5 (6)
- **Self-energy dynamics and the mode-specific phonon threshold effect in Kekule-ordered graphene.** *National science review*
  Zhang, H., Bao, C., Schuler, M., Zhou, S., Li, Q., Luo, L., Yao, W., Wang, Z., Devereaux, T. P., Zhou, S.
  2022; 9 (5): nwab175
- **Momentum-resolved resonant inelastic soft X-ray scattering (qRIXS) endstation at the ALS** *JOURNAL OF ELECTRON SPECTROSCOPY AND RELATED PHENOMENA*
  Chuang, Y., Feng, X., Cruz, A., Hanzel, K., Brown, A., Spucces, A., Frano, A., Lee, W., Kim, J., Chen, Y., Smith, B., Pepper, J. S., Shao, et al
  2022; 257
- **Magnon heat transport in a two-dimensional Mott insulator** *PHYSICAL REVIEW B*
  Wang, W. O., Ding, J. K., Moritz, B., Huang, E. W., Devereaux, T. P.
  2022; 105 (16)
- **Sign-free determinant quantum Monte Carlo study of excitonic density orders in a two-orbital Hubbard-Kanamori model** *PHYSICAL REVIEW B*
  Huang, X., Moritz, B., Claassen, M., Devereaux, T. P.
  2022; 105 (16)
- **Anisotropy of the magnetic and transport properties of EuZn2As2** *PHYSICAL REVIEW B*
  Wang, Z., Been, E., Gaudet, J., Alqasseri, G. A., Fruhling, K., Yao, X., Stuhr, U., Zhu, Q., Ren, Z., Cui, Y., Jia, C., Moritz, B., Chowdhury, et al
  2022; 105 (16)

- **On the Nature of Valence Charge and Spin Excitations via Multi-Orbital Hubbard Models for Infinite-Layer Nickelates** *FRONTIERS IN PHYSICS*
  Been, E. M., Hsu, K. H., Hu, Y., Moritz, B., Cui, Y., Jia, C., Devereaux, T. P.
  2022; 10
- **Distinguishing finite-momentum superconducting pairing states with two-electron photoemission spectroscopy** *PHYSICAL REVIEW B*
  Mahmood, F., Devereaux, T., Abbamonte, P., Morr, D. K.
  2022; 105 (6)
- **Polarization-Modulated Angle-Resolved Photoemission Spectroscopy: Toward Circular Dichroism without Circular Photons and Bloch Wave-function Reconstruction** *PHYSICAL REVIEW X*
  Schueler, M., Pincelli, T., Dong, S., Devereaux, T. P., Wolf, M., Rettig, L., Ernstorfer, R., Beaulieu, S.
  2022; 12 (1)
- **Unconventional spectral signature of Tc in a pure d-wave superconductor.** *Nature*
  Chen, S., Hashimoto, M., He, Y., Song, D., He, J., Li, Y., Ishida, S., Eisaki, H., Zaanen, J., Devereaux, T. P., Lee, D., Lu, D., Shen, et al
  1800; 601 (7894): 562-567
- **Web-based methods for X-ray and photoelectron spectroscopies** *COMPUTATIONAL MATERIALS SCIENCE*
  Devereaux, T. P., Moritz, B., Jia, C., Kas, J. J., Rehr, J. J.
  2021; 200
- **Orbitally selective resonant photodoping to enhance superconductivity** *PHYSICAL REVIEW B*
  Tang, T., Wang, Y., Moritz, B., Devereaux, T. P.
  2021; 104 (17)
- **Intertwined States at Finite Temperatures in the Hubbard Model** *JOURNAL OF THE PHYSICAL SOCIETY OF JAPAN*
  Huang, E. W., Wang, W. O., Ding, J. K., Liu, T., Liu, F., Huang, X., Moritz, B., Devereaux, T. P.
  2021; 90 (11)
- **Phonon-Mediated Long-Range Attractive Interaction in One-Dimensional Cuprates** *PHYSICAL REVIEW LETTERS*
  Wang, Y., Chen, Z., Shi, T., Moritz, B., Shen, Z., Devereaux, T. P.
  2021; 127 (19): 197003
- **Superconducting Fluctuations in Overdoped Bi2Sr2CaCu2O8+delta** *PHYSICAL REVIEW X*
  He, Y., Chen, S., Li, Z., Zhao, D., Song, D., Yoshida, Y., Eisaki, H., Wu, T., Chen, X., Lu, D., Meingast, C., Devereaux, T. P., Birgeneau, et al
  2021; 11 (3)
- **X-ray scattering from light-driven spin fluctuations in a doped Mott insulator** *COMMUNICATIONS PHYSICS*
  Wang, Y., Chen, Y., Devereaux, T. P., Moritz, B., Mitrano, M.
  2021; 4 (1)
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