

Faculty Achievements

July 2021–October 2021

Jean Burns, associate professor, Department of Biology

Books and Publications

- Rodgers, J. G., J. M. Bennett, J.M., M. Razanajatovo, T. M. Knight, M. van Kleunen, T-L. Ashman, J. A. Steets, C. Hui, G. Arceo-Gómez, M. Burd, L. A. Burkle, J. H. Burns, W. Durka, L. Freitas, J. E. Kemp, J. Li, A. Pauw, J. C. Vamosi, M. Wolowski, J. Xia, and A. G. Ellis. In press. *Widespread vulnerability of plant seed production to pollinator declines*. Science Advances.

Lauren Calandruccio, associate professor, Louis D. Beaumont University Professor II, Department of Psychological Sciences

Awards and Honors

- Named Fellow of the American Speech-Language-Hearing Association (ASHA)
- Received 2020 Hearing Editor's Award from the Journal of Speech, Language, and Hearing Research
- Received Think Big Leadership Award

Dale Dannefer, professor, Department of Sociology

Books and Publications

- Dale Dannefer, Jieliu Lin and George Gonos. 2021 *Age-Differentiated Vs. Age-Integrated: Neoliberal Policy and the Future of the Life Course*. Journal of Elder Policy 1 (2, Spring): 59-82.
- [Age and the Reach of Sociological Imagination: Power, Ideology and the Life Course](#) by Dale Dannefer

Other Achievements

- Accepted to symposium on age and cumulative disadvantage submitted for this year's Gerontological Society of America's meeting in Phoenix in November of 2021.

Ross Duffin, Distinguished University Professor Emeritus, Department of Music

Books and Publications

- Ross W. Duffin. [Hidden Music in Early Elizabethan Tragedy](#). Early Theatre (2021), 11–61.

Pavel Fileviez Perez, associate professor, Department of Physics

Book and Publications

- [Leptoquarks and Matter Unification: Flavor Anomalies and the Muon \$g-2\$](#) . Pavel Fileviez Perez, Clara Murgui, Alexis D. Plascencia, Physical Review D 104 (2021) 035041.
- [Baryogenesis via Leptogenesis: Spontaneous B and L Violation](#). Pavel Fileviez Perez, Clara Murgui, Alexis D. Plascencia, Physical Review D 104 (2021) 055007.

National and International Conference Presentations

- Probing the Nature of Neutrinos with New Forces, Plenary talk given at 20th Lomonosov Conference on Elementary Particle Physics, Aug 20, 2021.

Lydia Kisley, Warren E. Rupp Assistant Professor, Department of Physics

Books and Publications

- Kisley, L. *Remote exploration of experimental biophysical instrumentation in core facilities*. The Biophysicist. 2021, 2, 1-9. DOI: 10.35459/tbp.2021.000189.

Awards and Honors

- NIH NIGMS Maximizing Investigators' Research Award for Early Stage Investigators (MIRA R35), (8/1/2021—6/30/2026), "Super-resolution imaging of protein dynamics in the extracellular matrix," PI, \$1,918,914

Other Achievements

- Participant in Quantum Biology Square Workshop through a NSF Research Coordination Network, Virtual, September 1st, 3rd, 10th, and 17th, 2021. Hosts: Justin Caram and Clarice Aiello
- Began collaborative research through the Expanding Horizons Initiative on "Single-molecule imaging of f-element separations to advance purification design," PI Kisley with Co-PI Christine Duval

Walter Lambrecht, professor, Department of Physics

Books and Publications

- [Optical response and band structure of LiCoO₂ including electron-hole interaction effects](#). Santosh Kumar Radha, Walter R. L. Lambrecht, Brian Cunningham, Myrta Grüning, Dimitar Pashov, and Mark van Schilfgaarde. Phys. Rev. B 104, 115120 (2021)
- [Calculated phonon modes, infrared and Raman spectra in orthorhombic \$\alpha\$ – MoO₃ and monolayer MoO₃](#). Amol Ratnaparkhe, Santosh Kumar Radha and Walter R. L. Lambrecht. Journal of Applied Physics 130, 104302 (2021).

Other Achievements

- *Quasiparticle band structure calculation of monolayer, bilayer, and bulk MoS₂*. Tawinan Cheiwchanchnangij and Walter R. L. Lambrecht. Phys. Rev. B 85, 205302 (2012) was [listed among the Physical Review B 50th Anniversary Milestones](#).
- *Computational identification of Ga-vacancy related electron paramagnetic resonance centers in β -Ga₂O₃*. Dmitry Skachkov, Walter R. L. Lambrecht, Hans Jürgen von Bardeleben, Uwe Gerstmann, et al. J. Appl. Phys. 125, 185701 (2019) was listed among the Highly Read, Highly Cited Research in First-Principle and Density Functional Calculations and also featured on Scilight.

Kelly McMann, professor, Department of Political Science

Books and Publications

- Kelly M. McMann and Daniel Tisch. 2021. [Democratic Regimes and Epidemic Deaths](#). V-Dem Working Paper 126. University of Gothenburg: Varieties of Democracy Institute. (Co-Author Daniel Tisch is associate professor, Department of Population and Quantitative Health Sciences, School of Medicine and director, Master of Public Health Program at CWRU. The research was funded by a CWRU College of Arts and Sciences Expanding Horizons Initiative Grant.)

Einav Rabinovitch-Fox, lecturer, Department of History

Books and Publications

- [Dressed for Freedom: The Fashionable Politics of American Feminism](#) (University of Illinois Press, 2021)

Rachel Sternberg, associate professor, Department of Classics

Books and Publications

- [*The Ancient Greek Roots of Human Rights*](#). Austin: University of Texas, 2021.

Elisabeth Werner, professor, Department of Mathematics, Applied Mathematics and Statistics

Awards and Honors

- Renewal: NSF Grant "Convexity and Applications" (2021-2024).

National and International Conference Presentations

- Main Organizer of a Trimester "The Interplay between High-Dimensional Geometry and Probability" at the Hausdorff Institute, Bonn Germany.

Shulei Zhang, assistant professor, Department of Physics

Books and Publications

- L. Alahmed, B. Nepal, J. Macy, W. Zheng, B. Casas, A. Sapkota, N. Jones, A. R Mazza, M. Brahlek, W. Jin, M. Mahjouri-Samani, S. S.-L. Zhang*, C. Mewes*, L. Balicas*, T. Mewes*, P. Li*, *Magnetism and spin dynamics in room-temperature van der Waals magnet Fe₅GeTe₂*, 2D Mater. 8 045030 (2021). *Corresponding author.
- X. Zhang#, S. C. Ambhire#, Q. Lu, W. Niu, J. Cook, J. S. Jiang, D. Hong, L. Alahmed, L. He, R. Zhang, Y. Xu*, S. S.-L. Zhang*, P. Li*, and G. Bian*, *Giant Topological Hall Effect in van der Waals Heterostructures of CrTe₂/Bi₂Te₃*, ACS Nano (2021). #Equally contributed. *Corresponding author.
- J. Trimble, B. Gould, F. J. Heremans, S. S.-L. Zhang, D. D. Awschalom, and J. Berezovsky, *Relaxation of a single defect spin by the low-frequency gyrotropic mode of a magnetic vortex*, J. Appl. Phys. 130, 083903 (2021).