The University of Michigan Regents Communication

Item for Information

Subject: Henry Russel Awards for 2027

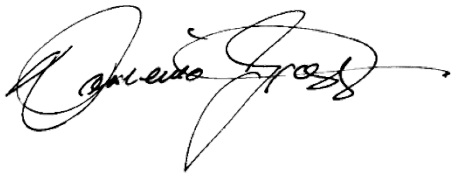
Background

The Henry Russel Awards Faculty Advisory Committee, chaired by Dean Michael J. Solomon, met recently and upon their recommendation I am pleased to confirm the selection of four faculty members to receive Henry Russel Awards for 2027. This award, which recognizes both exceptional scholarship and conspicuous ability as a teacher, is one of the highest honors the University bestows upon junior faculty members. The awards will be presented on the occasion of the Henry Russel Lecture, to be delivered in the Winter Term of 2027.

The faculty members selected to receive this award are:

- **Mania Aghaei Meibodi**, Assistant Professor of Architecture, A Alfred Taubman College of Architecture and Urban Planning
- **Camille Avestruz**, Assistant Professor of Physics, College of Literature, Science, and the Arts
- **Fangfei Miao**, Assistant Professor of Music, School of Music, Theatre & Dance
- **Cyrus Omar**, Assistant Professor of Electrical Engineering and Computer Science, College of Engineering

Respectfully submitted:



Domenico Grasso
President

June 2026

Attachment

Mania Aghaei Meibodi

Mania Aghaei Meibodi earned her B.A.Sc. (2006) from Curtin University of Technology in Australia and her M.Arch. (2008) from KTH Royal Institute of Technology, followed by a Lic.Eng. (2012) in architectural engineering from Luleå University of Technology and a Ph.D. in architectural design and technology (2016) from KTH. She was a postdoctoral researcher and senior researcher at ETH Zürich. She joined the University of Michigan in 2019 as an assistant professor of architecture.

Professor Aghaei Meibodi's research integrates new robotic methods with novel computational design technologies—including machine learning and physics-based algorithms—to unlock the full potential of 3-D printing for material, productivity, and environmental efficiencies in both the construction process and the building in service, while prototyping the next generation of building elements that reduce material use, waste, construction time, and energy consumption. In 2025, she received an NSF CAREER Award, a notable distinction for architecture. Her scholarship on 3D concrete printing methods has appeared in Automation in Construction, Additive Manufacturing, and Virtual and Physical Prototyping. She has filed eight international and U.S. priority patent applications, including inventions related to printing complex concrete geometries, multi-nozzle robotic spraying, and mixing components for robotic additive manufacturing of slurry-based materials. Her contributions have also been recognized by U-M Innovation Partnerships, which named her an "Innovation Champion" and by the Construction Institute, which honored her as a "Leader and Visionary" in 2022. She collaborates across campus, including work with College of Engineering partners supported by an OVPR Bold Challenges and MMRI grants. Beyond U-M, she is a sought-after speaker with invited engagements that include the National Academies of Sciences, Engineering, and Medicine, and she serves as a reviewer for the NSF, for Advanced Manufacturing, and for leading conferences such as ACADIA and eCAADe. Peers recognize her as a gifted designer whose 3D-printed architectural components are both technologically innovative and aesthetically distinctive; her work has been exhibited at the Cooper Union in New York City, swissnex in San Franciso, and the Venice Architecture Biennale.

Professor Aghaei Meibodi is also a dedicated and energetic teacher and mentor. Her courses develop students' digital fabrication literacies and algorithmic thinking, enabling fabrication-informed design workflows that connect computation, fabrication, performance, and optimization. Student feedback highlights both the rigor of the content and her exceptional commitment to student learning and support. As director of DART Laboratory, she mentors Ph.D. students and researchers in a lab culture centered on rigorous inquiry, experimentation. She has organized interdisciplinary workshops and symposia that broaden skills and knowledge in robotic construction, additive manufacturing and computational design, and she has extended her educational impact beyond the university by developing tools and learning modules that introduce high school students to 3D printing and geometric modeling. Her mentorship also includes helping students and colleagues navigate innovation and intellectual

property processes as a U-M Innovation Champion. Within Taubman College, she contributes to curricular development, including the development of a new cross-disciplinary program with Engineering.

Professor Meibodi's accomplishments as an exceptional researcher, teacher, and mentor bring distinction to the Taubman College of Architecture and Urban Planning and the University of Michigan and make her exceptionally qualified to receive the Henry Russel Award.

Camille Avestruz

Camille Avestruz earned her B.A. (2009) in physics, mathematics, and dance from Barnard College and a Ph.D. in physics from Yale University (2015). She held postdoctoral fellowships at the University of Chicago, including a Provost's Postdoctoral Scholar appointment in Astronomy and Astrophysics, a Kavli Institute for Cosmological Physics fellowship, and an Enrico Fermi Prize Postdoctoral Fellowship. She joined the University of Michigan in 2019 as an LSA Collegiate Fellow and is now an assistant professor of physics.

Professor Avestruz has made innovative contributions to galaxy cluster science, specifically in applying artificial intelligence methods for object characterization in astronomical survey imaging. Her work directly addresses foundational questions in cosmology, such as the nature of dark energy, and she has helped shape the future of cosmological research through leadership in large collaborations connected to the Vera C. Rubin Observatory's Legacy Survey of Space and Time (LSST). She founded and co-led the Cluster Mass Modeling (CLMM) topical team within the LSST Dark Energy Science Collaboration (LSST-DESC), curating an open-source Python library that enables robust mass estimates from weak gravitational lensing and provides a modular framework for validating analysis pipelines essential for LSST cluster science. She spearheads an interdisciplinary collaboration between astronomers and statisticians to develop pioneering AI approaches for detecting and disentangling overlapping objects in crowded sky images, improving the reliability of galaxy catalogs. Her team also developed the MultiCAM model, which enables nuanced multivariate linkages between galaxies, galaxy clusters, and their host dark matter halos. Her scholarship is marked by a commitment to open science, precision cosmology, and interdisciplinary collaboration, and has been recognized by a 2025 Cottrell Scholar Award from the Research Corporation for Science Advancement as well as honors that include a Simons Emmy Noether Fellowship at the Perimeter Institute and an IDEA Scholar designation at the Flatiron Institute. She has also been designated an LSST-DESC Builder and has received research support from the Department of Energy (DOE), the National Science Foundation (NSF), and the National Aeronautics and Space Administration (NASA).

Professor Avestruz is an outstanding teacher and mentor who pairs high expectations with a hands-on, supportive approach that helps students build deep scientific and professional skills. Her students and postdoctoral mentees have found positions at major universities including Stanford/SLAC, Harvard, and the University of Texas, Austin. Undergraduates in her group routinely participate in publishable research, with multiple alumni earning honors such as NSF

GRFP Honorable Mention and Fulbright awards. She has participated in outreach programs such as Saturday Morning Physics and the Conference for Undergraduate Women in Physics. In the classroom, she has transformed core offerings through active-learning redesigns, such as new “pre-lab” exercises and restructured lab activities in Physics 106 in addition to scaffolded Python Colab notebooks in Physics 391 that have been adopted by other instructors. She also participated in an LSA committee that helped launch COMPFOR 131: Introduction to Python for the Natural Sciences.

Professor Avestruz’s accomplishments as an exceptional researcher, teacher, and mentor bring distinction to the College of Literature, Science, and the Arts and the University of Michigan and make her exceptionally qualified to receive the Henry Russel Award.

Fangfei Miao

Fangfei Miao earned her B.A. with honors (2008) in dance history and theory from the Beijing Dance Academy, China’s premier conservatory, followed by an M.F.A. (2011) in choreography from the Beijing Dance Academy and a Ph.D. (2019) in culture and performance from the University of California, Los Angeles. Prior to joining the University of Michigan, she served as a visiting assistant professor of theatre and dance at Muhlenberg College. She was appointed assistant professor in dance at U-M in 2020.

Professor Miao is a leading scholar of Chinese dance studies and an innovative creator of contemporary Asian dances, bringing a distinctive scholar-artist profile to her discipline. Her scholarship reframes Chinese dance through culturally grounded, bilingual, and transnational perspectives, challenging the dominant academic tradition of treating Asian dancers as the research subjects of Western scholars. Her in-progress monograph is the first book-length study to examine U.S.–China relations from a dance studies perspective. Her leadership is also shaping networks in the field and scholarly conversation: she is editor of the special issue Mobility, Dance, and China (August 2025), the first journal issue on Chinese dance in Dance Research Journal, and since 2022 she has co-edited Bloomsbury’s Dance in Dialogue book series, which advances interdisciplinary scholarship on performance and dance in political, cultural, social, and economic context. Her work has appeared in leading journals, both in English and Chinese, including Dance Research Journal, Theatre Journal, Asian Theater Journal, the Contemporary Dance Research, and the Journal of the Beijing Dance Academy. She has presented widely on topics ranging from dance circulation and history to theorizing Chinese dance in the West and the role of dance in social connectivity. She was invited to deliver a plenary address at the Dance Studies Association annual conference in July 2024. Professor Miao maintains an active creative practice as a director, choreographer, and dancer, with works staged in cities including Lyon, New York, Los Angeles, Auckland, Shanghai, and Beijing; recent and forthcoming projects include the evening-length concert No Other and international artist residencies in Europe and North America.

Professor Miao is an exceptional teacher and mentor whose courses and studio practices cultivate cross-cultural dialogue, rigorous thinking, and confident artistic growth. She has expanded the curriculum with new offerings such as Dance Across Borders and Daoist Flow Contemporary Dance; students describe her classes as challenging, supportive environments in which they feel empowered to take creative risks. She mentors graduate students with interdisciplinary guidance and sustained advising that often extends beyond graduation. She also advances global learning through institutional partnership-building: in 2023 she created an exchange program between U-M and the Shanghai Theatre Academy College of Dance, leading a 10-day engagement that included performances of her work alongside student creations and intensive study across multiple dance techniques. She has served on the Board of Directors of the Dance Studies Association, on the American Society for Theatre Research Awards Committee, as well as editorial and advisory board roles across the field.

Professor Miao's accomplishments as an exceptional researcher, teacher, and mentor bring distinction to the School of Music, Theatre & Dance and the University of Michigan and make her exceptionally qualified to receive the Henry Russel Award.

Cyrus Omar

Cyrus Omar earned dual B.S. (2008) degrees in computer science and molecular & cellular biology, summa cum laude, from the University of Illinois, Urbana–Champaign, followed by a Ph.D. (2017) in computer science from Carnegie Mellon University. He held a postdoctoral appointment in computer science at the University of Chicago, joining the University of Michigan in 2019 as an assistant professor of computer science and engineering.

Professor Omar aspires to re-imagine the programming experience to make it more intuitive, accessible, and intelligent. As director of the Future of Programming Lab, his research engages in both rigorous theoretical developments and human-centered design for next-generation programming environments. A major focus of his work has been the "structure editing problem" which has bedeviled researchers since the 1980s: is there a way to create a source code editor that allows people to manipulate code without requiring expert knowledge of syntactic rules? A central thread in his scholarship is the use of "typed holes" and techniques to help programmers construct correct programs incrementally, with live, informative feedback rather than delayed and opaque errors. This agenda has produced influential results across language design, program editing, and reasoning tools, including foundational work such as Hazelnut: A Bidirectionally Typed Structure Editor Calculus and a sustained stream of advances on live programming, error localization and recovery, collaborative coding, and integration of graphical representations into symbolic code. His recent work includes methods for statically contextualizing large language models with typed holes, enabling stronger guarantees when combining LLM assistance with programming language semantics. Professor Omar's scholarship has been recognized with an NSF CAREER Award, multiple Distinguished Paper Awards and invitations for talks and keynote addresses across academia and industry. At the University of

Michigan, his impact has been recognized with the College of Engineering's 1938E Award (2025).

Professor Omar is also an exceptional teacher and mentor who has built a thriving research and training environment at Michigan. He has taught key courses in the EECS curriculum, including EECS 490 (Programming Languages) and EECS 203 (Discrete Mathematics), and advanced offerings such as CSE 590 (Advanced Programming Languages) and EECS 598 (User Interfaces for Programming Languages). His mentoring record includes advising doctoral students, postdoctoral scholars, and a large cohort of undergraduate and master's researchers; many of his mentees have gone on to Ph.D. programs and competitive fellowships, including the NSF Graduate Research Fellowship. His service strengthens student experiences and educational infrastructure, including leadership in curriculum innovation and sustained mentorship through programs that broaden participation in computing. He worked with colleagues to revive the long-running annual Midwest Programming Languages Summit after it had been derailed by the pandemic, hosting over 100 students and faculty for a one-day symposium in Ann Arbor. Nationally and internationally, he has an extensive record of professional service—program committees, panels, and reviewing across top venues in programming languages, human-computer interaction, and computing education—helping shape the direction and standards of the field.

Professor Omar's accomplishments as an exceptional researcher, teacher, and mentor bring distinction to the College of Engineering and the University of Michigan and make him exceptionally qualified to receive the Henry Russel Award.