

Approved by the Board of Trustees
January 21, 2021

Board Meeting
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APPOINT FELLOWS TO THE CENTER FOR ADVANCED STUDY, URBANA

Action: Appoint Fellows to the Center for Advanced Study for the Academic Year 2021-2022

Funding: Private Gift Funds from the Beckman Endowment and State Appropriated Funds

Each year the Center for Advanced Study awards appointments as Fellows in the Center, providing one semester of release time for creative work. Fellows are selected in an annual competition from the untenured faculty of all departments and colleges to carry out self-initiated programs of scholarly research or professional activity.

The Chancellor, University of Illinois Urbana, and Vice President, University of Illinois System recommends the following list of Fellows selected for the 2021-2022 academic year, and offers brief descriptions of their projects:

Clara Bosak-Schroeder, Assistant Professor, Classics, *Seven Wonders: Remaking the Past

Seven Wonders: Remaking the Past is the first book to consider the seven wonders of the ancient world from the perspective of modern and contemporary art. Analyzing how artists from marginalized standpoints have reinterpreted these ancient wonders, the book counters white supremacist appropriations of ancient Mediterranean artworks and imagines a new future for classical studies.

Barry Bradlyn, Assistant Professor, Physics, *Developing the Theory for New Probes of Quantum Materials

This project will develop new theoretical tools to study topological quantum materials. These tools will be used to enrich our understanding of the properties

and possible applications of novel materials, in collaboration with experimental physicists in the Center for Quantum Sensing and Quantum Materials at the University of Illinois.

Lindsay Braun, Assistant Professor, Urban and Regional Planning, *Healthy for Whom? Social Equity in the Distribution of Bicycling Benefits and Risks

Bicycling for transportation is associated with multiple health outcomes, including both benefits (e.g., physical activity) and risks (e.g., pollution exposure, injury potential). This research project examines these health tradeoffs through the lens of social equity, considering whether the benefits of bicycling outweigh its risks for all groups, including marginalized populations.

Damien Guironnet, Assistant Professor, Chemical and Biomolecular Engineering, *Automated Polymer Synthesis to Accelerate Discovery*

Professor Guironnet will develop an automated polymer synthesizer to produce polymers with precise shape, size, and chemistry. The tunability and throughput of the synthesizer will be used to achieve functions with synthetic polymers that are today only achieved by biopolymers (DNA, polypeptide, polysaccharide).

Sean Kennedy, Assistant Professor, Urban and Regional Planning, *Who Benefits from Private Climate Finance? Private Climate Adaptation Finance and its Implications for the Distribution of Climate-Related Risks in Indonesia*

The private sector is an increasingly important funding source for climate adaptation, yet the extent to which private finance reduces or merely redistributes climate risks to more vulnerable groups has received limited attention. This study examines the relationship between private climate finance, climate adaptation, and agrarian change to understand the implications of private climate finance for environmental governance and the distribution of climate risks in rural Indonesia.

Lavanya Marla, Assistant Professor, Industrial and Enterprise Systems Engineering, *Mathematical Frameworks for Next-Generation Emergency Medical Services*

This project studies Next-Generation Emergency Medical Services, which incorporate advanced technology like autonomy and real-time information-sharing, and advanced analytics such as novel algorithms and real-time distributed computing. It will generate new knowledge in the form of advanced analytical models and algorithms from a systems design and operations perspective, which will enable healthcare delivery to many resource-constrained sections of society.

William Schneider, Assistant Professor, School of Social Work, *Income and Housing Support Experiments and Child Neglect

Although existing policy aimed at reducing child neglect is overwhelmingly focused on psycho-social interventions, poverty may be a primary determinant. Professor Schneider will leverage three existing income and housing support experiments in Illinois, which he will match to the Illinois Department of Children and Family Services data, to examine the effect of income-based interventions on child neglect.

Aida Talić, Assistant Professor, Linguistics, *The Syntax and Tone of Dholuo

Professor Talić investigates cross-linguistic variation in the size of the nominal and adjectival domain and the interaction between syntactic structure and tone, seeking to unveil properties that all languages share in this respect and specific points of variation. In this project, she will focus on several constructions in the language Dholuo from the Nilo-Saharan family, which has been mostly absent from the discussion of these issues in the previous generative literature.

Vishal Verma, Assistant Professor, Civil and Environmental Engineering, *Health-relevant Properties of Ambient Particulate Matter – Targeted Studies in Air Polluted Cities across the World*

Professor Verma plans to develop a global collaboration to initiate and conduct targeted studies focused on assessing the health-relevant properties of the fine ambient particulate matter, which is the most important air pollutant responsible for air pollution related mortality.

Lucas Wagner, Assistant Professor, Physics, *Expanding Access to Low Energy Physics Derived from First Principles*

Professor Wagner will develop tools to better understand the quantum behavior of electrons in materials. The advances will enable simple descriptions of complex materials which will have further effects in technology.

The Board action recommended in this item complies in all material respects with applicable State and Federal laws, *University of Illinois Statutes, The General Rules Concerning University Organization and Procedure*, and Board of Trustees policies and directives.

The Executive Vice President and the Vice President for Academic Affairs

concur.

The President of the University recommends approval.

* These faculty members have been recommended for appointment as Beckman Fellows in the Center for Advanced Study, named for the donor of a gift that permits additional recognition for outstanding younger Fellow candidates who have already made distinctive scholarly contributions to their respective fields.