

Collaboration Consortium

Biographies of Participants

Interdisciplinary Dialogue #5 - Thursday, November 8, 2018

Gina Bloom – Professor and Interim Department Chair, Department of English

Gina Bloom joined the UC Davis English faculty in 2007 and has since become affiliated faculty with the PhD programs in Education and Performance Studies. Before coming to Davis, she taught at the University of Iowa and Lawrence University. Her areas of interest include early modern English literature, especially Shakespeare and drama, gender and feminist theory, theater history and performance, sound studies, digital arts/humanities, and education. Bloom has held fellowships from the Institute for the Study of Humanities at the University of Wisconsin, Madison, the Folger Library, the Huntington Library, and the American Council of Learned Societies (ACLS). And she is the Book Review Editor for the journal Theatre Survey. She serves on the Executive Committee for the Modern Language Association (MLA) Forum on Shakespeare and is also a Trustee for the Shakespeare Association of America (SAA). [Source: <https://english.ucdavis.edu/people/gbloom>]

Colin Cameron – Professor, Department of Economics

Colin Cameron is professor of economics at the University of California, Davis. He is also a member of the UCD Graduate Group in Statistics, a faculty member of the Center for Health Services Research in Primary Care at UC Davis, serves on several university committees, and is a Visiting Professor at the School of Economics at the University of Sydney. He is associate editor of The Stata Journal and associate editor of the Journal of Econometric Methods. Dr. Cameron is the co-author of three graduate-level books in microeconometrics methods and has presented many short courses around the world. [Source: <http://economics.ucdavis.edu/people/ccameron>]

Raissa M. D'Souza – Professor, Department of Mechanical and Aerospace Engineering, Department of Computer Science

Raissa D'Souza's research focuses on self-organization and phase transitions on lattices, networks, and chains. How do patterns and structural organization arise from small-scale, local interactions within a system? How does this affect the location and order of phase transitions? Finally, what is the interplay of structure and function in evolving systems? She builds mathematical models, which can apply to real-world systems, and analyzes data from real-world systems (such as interactions of functions in open-source software) to uncover robust design structures. Her research and publications span the fields of physics, applied math and computer science. [Source: <http://csc.ucdavis.edu/DSouza.html> and <https://faculty.engineering.ucdavis.edu/dsouza/>]

Davide Donadio – Assistant Professor, Department of Chemistry

Molecular modelling and simulations are vital components of materials science, as they provide an essential tool to engineer novel materials with improved performances. A comprehensive approach to materials modelling should then cover the chain that links processing, structure and functionality, which are tightly intertwined. Processing of materials and their functionality, such as energy conversion and transport, involve intrinsically out of equilibrium processes at various length and time scales, including non-classical paths to form metastable structures, large thermal gradients and large gradients in chemical potentials. Davide Donadio's group explores predictive multiscale modeling of non-equilibrium processes and characterization of materials at the molecular scale, to enable intelligent design of new systems with desired functionalities. Research currently focuses on (bio-)templated growth and assembly of nanostructures and hierarchical materials, reactions at interfaces and in solution, nano-phononics and thermoelectric materials, and thermal transport in hybrid nanostructures and at hard/soft matter interfaces. [Source: <https://chemistry.ucdavis.edu/people/davide-donadio>]

James Griesemer – Professor and Chair of the Department of Philosophy

James Griesemer joined the UC Davis Department of Philosophy faculty in 1983. He is the founding director of the program in History and Philosophy of Science at UC Davis and participated in its evolution into the Science and Technology Studies Program. He works at the intersection of historical, philosophical, and social scientific problems of understanding the development of the modern biological sciences. He has lived through and studied numerous “scientific revolutions,” from the emergence of the impact theory of dinosaur extinction, to the rise of statistical thinking in ecology and systematics, to the emergence of multi-level evolutionary theory, to evolutionary transition theory of the origins of levels of biological organization, to epigenetic inheritance, to the fusion of evolution and development in “evo-devo,” and now the microbiome and holobiont revolutions in our understanding of biological “individuality.” [Source: <http://philosophy.ucdavis.edu/people/jrgriese>]

Ted Grosholz – Professor, Environmental Science & Policy, Swantz Chair in Cooperative Extension

Ted Grosholz's fields of interest include population dynamics and community ecology, invasion biology, conservation biology, biodiversity of marine and estuarine systems, and applications of ecological theory to coastal management problems. His approach involves field and laboratory experiments that answer basic ecological questions and provide solutions to management problems. He is part of the Graduate Group in Ecology. [Source: <https://desp.ucdavis.edu/people/edwin-grosholz>]

Ting Guo – Professor, Department of Chemistry

Professor Ting Guo's research group at UC Davis focuses on studying the mechanisms and control of energy exchanges between nanomaterials and between nanomaterials and their environment. The forms of energy include chemical energy, visible photon energy, and especially x-ray photon energy. Nanomaterials can be uniquely used to harvest these forms of energy and redirect them to facilitate chemical reactions including catalytic reactions and radical reactions in aqueous solution, and to cause changes such as electric field and temperature. Most of these energy redirection and control processes can be made to occur with nanometer precision. Currently we are investigating catalysis involving carbon dioxide using very small nickel and platinum nanoparticles with and without substrates, ultrafast processes in nanomaterials, and enhanced x-ray radiation absorption, energy deposition, and chemical manipulation using networks of nanometer sized gold nanoparticles. Studying these three interconnected areas enables us to achieve a more complete understanding and nonlinear growth of knowledge within each subject. [Source: <https://chemistry.ucdavis.edu/people/ting-guo>]

Susan L. Handy – Professor, Environmental Science & Policy

Susan Handy's research focuses on the relationships between transportation and land use and on strategies for reducing automobile dependence. Her recent work includes a series of studies on bicycling in Davis, including an exploration of the formation of attitudes towards bicycling, a study of factors affecting bicycling to high school, and the use of electric-assist bicycles. She recently completed projects for the California Air Resources Board and Caltrans on the impacts of "smart growth" strategies on vehicle travel. [Source: <https://desp.ucdavis.edu/people/susan-l-handy>]

Jacob Hibel – Associate Professor, Department of Sociology

Much of Jacob Hibel's current research focuses on large-scale immigration's consequences for children, schools, and communities. He is particularly interested in community-level effects: the consequences of living and attending school in an immigrant-rich community versus one with lower historical immigration levels. Specific projects in this thread include examinations of cross-community discrepancies in immigrant children's disability identification, neighborhood influences on Mexican American immigrant children's academic achievement, and historical trends in migration, segregation and public school funding in the U.S. With support from the William T. Grant Foundation, Professor Hibel is conducting a series of studies examining cross-community variation in the formation and implementation of policies designed to increase access to special education, English acquisition and gifted/talented education services among children of immigrants. [Source: <http://sociology.ucdavis.edu/people/jhibel>]

Martin Hilbert – Associate Professor, Department of Communication and Graduate Group in Computer Science

Martin Hilbert pursues a multidisciplinary approach to understanding the role of information and knowledge in the development of complex social systems. Before joining UC Davis, he created and coordinated the Information Society Programme of United Nations Regional Commission for Latin America and the Caribbean. In his 15 years as United Nations Economic Affairs Officer he performed hands-on technical assistance in the field of digital development to presidents, government experts, legislators, diplomats, NGOs, and companies in more than 20 countries. Policy makers from the highest political levels have officially recognized the impact of these projects. International perspectives are no mere theoretical work obligation to him, as he speaks five languages, worked in four continents, and has traveled to over 70 countries. [Source: <http://communication.ucdavis.edu/people/hilbert>]

Jonathan London – Associate Professor; Director of Center for Regional Change

Jonathan London is an educator, researcher, and community-builder with experience in participatory research, rural community development, and community engaged planning. Jonathan's research addresses conflicts and collaboration in natural resource and environmental management, with a particular emphasis on environmental justice in rural communities. His early research focused on conflicts over forest management in the Sierra Nevada and currently works throughout the Central and Coachella Valley. Jonathan directs the UC Davis Center for Regional Change, which serves as a catalyst for multi-disciplinary and policy-oriented research that informs the building of healthy, prosperous, equitable, and sustainable regions in California and beyond. [Source: <https://humanecology.ucdavis.edu/jonathan-london>]

Mark Lubell – Professor, Department of Environmental Science and Policy

Mark Lubell's research focuses on human behavior and the role of governance institutions in solving collective action problems and facilitating cooperation. The collective action problems associated with environmental policy provide a laboratory for my research. Current projects include watershed management, environmental activism, agricultural best management practices, and institutional change in local governments. He also dabbles in experimental economics and simulation techniques to further explore collective action theory. [Source: <http://environmentalpolicy.ucdavis.edu/people/lubell>]

Josh McCoy – Assistant Professor, Department of Computer Science, Cinema and Digital Media

In his role as Assistant Professor at UC Davis in the departments of Computer Science and Cinema and Digital Media, Josh is a game developer, computer scientist and cross-disciplinary researcher whose work lies at the confluence of game technology, social science, artificial intelligence and design. His goal is to create playable experiences that communicate to broad audiences and critically address the challenges present in our society while expanding the boundaries of technology. The most recent products of his research involve combining artificial intelligence techniques with social science to create meaningful, responsive and socially engaging game experiences. His key works includes the experimental and award-winning game Prom Week that enables a new level of social interaction between characters via an artificial intelligence system that leverages social science to make social behavior playable. [Source: <https://faculty.engineering.ucdavis.edu/mccoy/>]

Andrew Morris Latimer – Associate Professor and Associate Ecologist, Department of Plant Sciences, College of Agricultural and Environmental Sciences

Andrew Morris Latimer studies how plant populations and communities respond to change, including sudden, major disturbance such as fire and drought, as well as more gradual changes in climate. At the shortest time scales, he is focusing on how communities and populations respond to drought and fire, and how invasive species respond to novel habitats. Over longer time scales, his research examines local adaptation to gradients in climatic conditions and to variability in those conditions. Much of his work involves fire, since this plays such a major role in the ecology and evolution of Mediterranean climate floras and in local land management here in California. His research on the interactions among fire, vegetation, and climate has direct application to forest and rangeland management in an era of climate and land use change. [Source: <https://www.plantsciences.ucdavis.edu/people/andrew-latimer>]

Dawn Y. Sumner – Professor, Department of Earth & Planetary Sciences

Dawn Sumner's research focuses on reconstructing ancient environments on early Earth and Mars and the early evolution of bacteria, including the origin of oxygenic photosynthesis. Her group studies everything from the environmental settings, geochemistry and morphology of Archean microbialites to the morphology, climate response, and genomics of modern microbial communities growing in ice-covered Antarctic lakes to the stratigraphy and geochemistry of sedimentary rocks on Mars. Sumner is a member of NASA's Mars Science Laboratory, helping the rover Curiosity explore ancient environments in Gale Crater on Mars. She regularly shares her research and adventures with the public. [Source: <https://geology.ucdavis.edu/people/faculty/sumner>]

**Keith Taylor – Assistant Economic Development Specialist in Cooperative Extension,
Department of Human Ecology**

Keith Taylor holds a Ph.D. in Human and Community Development and a Master's in Public Administration from the University of Illinois. As a faculty Specialist in Community Economic Development (CED), Keith is interested in economic development approaches that are enduring, build localized self-reliance, and account for volatile market and political forces by breaking dependency. Toward these ends, he focuses on three CED relevant areas in the context of Californian, American, and international communities: (1) community participation and governance, (2) economic development through local and alternative business development, and (3) market access and community power through scale. Prior to joining U.C. Davis, he was a Research Associate at Indiana University's Ostrom Workshop, has worked in public policy as a Legislative Aide for a Member of Congress, consulted in business strategy and economic and international development, and engaged in board development and facilitation around strategic planning. [Source: <https://www.linkedin.com/in/keithataylor/>]