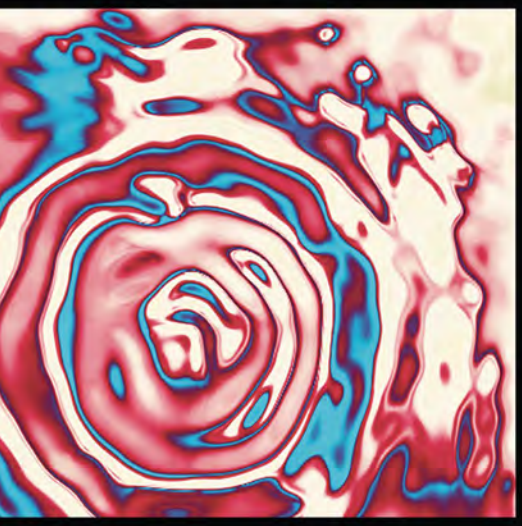
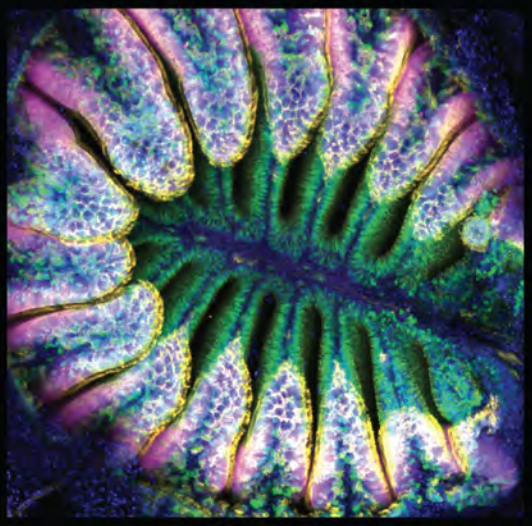
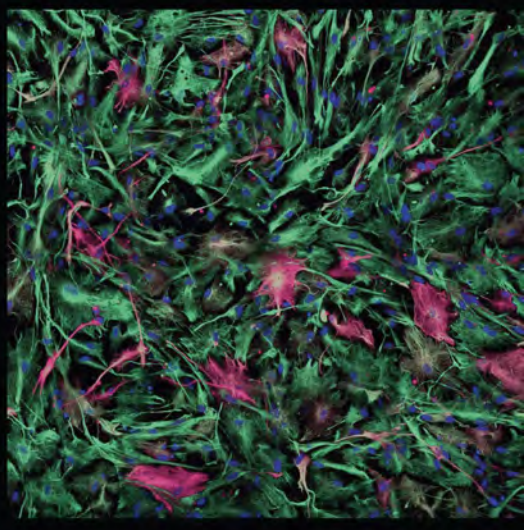
2024 Kavli Institute Assembly







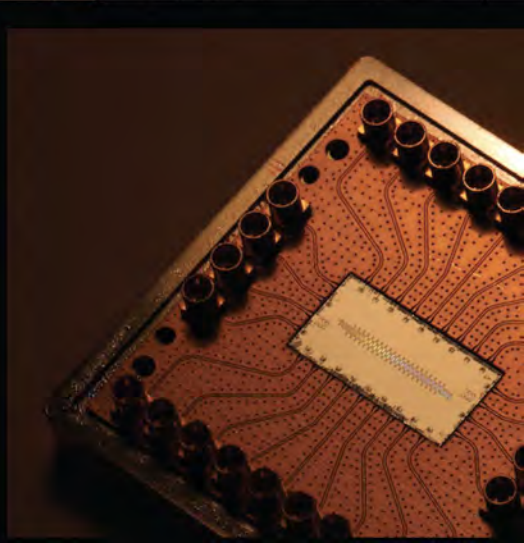


Table of Contents

MONDAY, JULY 15: DAY 1

8:00am	Breakfast
8:45am	Welcome and Foundation Updates
9:45am	Board Buses for Excursion
11:00pm	Excursion and Lunch
2:15pm	Board Buses for Kavli Foundation
3:45pm	Director Visions - Plenary Featuring KI Directors
4:25pm	Field Forums - Breakout Groups by Field
5:25pm	Closing Remarks
5:30pm	Directors Group Photo
5:30-7:30pm	Reception for All Attendees at The Kavli Foundation

TUESDAY, JULY 16: DAY 2

8:00am	Breakfast
9:00am	Welcome Remarks
9:15am	Fireside Chat with Nobel Laureate Frances Arnold
10:00am	Break
10:30am	Highlights from The Big, The Small, The Complex
12:00pm	Lunch on the Event Horizon Rooftop
1:00pm	Spotlight on Collaborations
2:00pm	Poster Preview Lightning Talks
2:30pm	Group Photo
2:45pm	Poster Session and Mixer
5:00pm	Closing Remarks

The Kavli Institutes

ASTROPHYSICS

Kavli Institute for Astrophysics and Space Research MIT

Kavli Institute for Astronomy and Astrophysics PEKING UNIVERSITY-BEIJING

Kavli Institute for Particle Astrophysics and Cosmology STANFORD UNIVERSITY

Kavli Institute for Cosmology UNIVERSITY OF CAMBRIDGE

Kavli Institute for Cosmological Physics UNIVERSITY OF CHICAGO

Kavli Institute for the Physics and Mathematics of the Universe UNIVERSITY OF TOKYO

NANOSCIENCE

Kavli Nanoscience Institute CALTECH

Kavli Institute at Cornell for Nanoscale Science CORNELL UNIVERSITY

Kavli Institute of Nanoscience Delft DELFT UNIVERSITY OF TECHNOLOGY

Kavli Energy NanoScience Institute UC BERKELEY

Kavli Institute for NanoScience Discovery UNIVERSITY OF OXFORD

NEUROSCIENCE

Kavli Institute for Brain Science COLUMBIA UNIVERSITY

Kavli Neuroscience Discovery Institute JOHNS HOPKINS UNIVERSITY

Kavli Institute for Systems Neuroscience NTNU

Kavli Neural Systems Institute THE ROCKEFELLER UNIVERSITY

Kavli Institute for Brain and Mind UC SAN DIEGO | SALK INSTITUTE

Kavli Institute for Fundamental Neuroscience UC SAN FRANCISCO

Kavli Institute for Neuroscience YALE UNIVERSITY

THEORETICAL PHYSICS

Kavli Institute for Theoretical Physics UC SANTA BARBARA

Kavli Institute for Theoretical Sciences UNIVERSITY OF CHINESE ACADEMY OF SCIENCES

Assembly Attendees

The 2024 Kavli Institute Assembly includes directors, director representatives, and member scientists from the 20 institutes. Learn more about each attendee on the following pages.

Kavli Institute for Astrophysics and Space Research

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Rob Simcoe

Kavli Institute Director

Robert Simcoe is the Francis L. Friedman Professor of Physics and Director of the MIT Kavli Institute for Astrophysics and Space Research. He specializes in observational astrophysics, with particular emphasis on the chemistry of galaxies and intergalactic matter in the early universe. Simcoe earned his Ph.D. in astronomy from Caltech in 2003.

Kishalay De

Postdoctoral Fellow

Kishalay De is a NASA Einstein Postdoctoral fellow and Kavli Institute fellow at the Massachusetts Institute of Technology. He uses the largest cameras in the optical and infrared bands to search for cosmic cataclysms in the near and distant universe to understand how stellar companions can shape the universe around us. De earned his Ph.D. in astrophysics from Caltech in 2021.

Sarah Millholland

Assistant Professor of Physics

Sarah Millholland studies a broad range of problems in exoplanetary science. Her research explores the demographics and diversity of extrasolar planetary systems and aims to constrain the physics of planet formation and evolution. Millholland earned her Ph.D. in astronomy from Yale University in 2020.

Kavli Institute for Astronomy and Astrophysics

PEKING UNIVERSITY-BEIJING

Luis Ho

Kavli Institute Director, not in attendance

Gregory Herczeg

Kavli Institute Director Representative

Gregory Herczeg is Associate Director for Science and Associate Professor at the Kavli Institute for Astronomy and Astrophysics at Peking University. His research focuses on observational investigations of star and planet formation, with particular interest in the growth of stars and planets. Herczeg earned his Ph.D. at University of Colorado in 2005.

Fangzhou Jiang

Assistant Professor

Fangzhou Jiang is an Assistant Professor at the Kavli Institute for Astronomy and Astrophysics at Peking University. He carries out theoretical and computational studies of galaxies and cosmology, with research programs aimed at a comprehensive theoretical picture of dark-matter halos and their interplay with inhabitant galaxies across the history of the Universe. Jiang earned his Ph.D. in astronomy from Yale University in 2016.

Feng Long

Postdoctoral Fellow

Feng Long is currently a NASA Hubble Fellowship Program Sagan Fellow at the Lunar and Planetary Lab of the University of Arizona. Her research focuses on the formation and evolution of protoplanetary disks, employing cutting-edge facilities (e.g., ALMA, JWST) to understand the planet assembly process. Long earned her Ph.D. in astrophysics in 2019 from Peking University. She will join KIAA as a faculty member in 2025.

Kavli Institute for Particle Astrophysics and Cosmology

STANFORD UNIVERSITY

Risa Wechsler

Kavli Institute Director

Risa Wechsler is Director of the Kavli Institute for Particle Astrophysics and Cosmology at Stanford University and SLAC National Accelerator Laboratory, where she is also the Humanities and Sciences Professor and Professor of Physics and of Particle Physics and Astrophysics. Her research combines large cosmological simulations and modeling with the biggest and most precise maps of the universe to model and measure cosmic structure, understand the physics of galaxy formation, and elucidate the nature of dark matter and dark energy. She earned her Ph.D. in physics from UC Santa Cruz.

Christian Aganze

Stanford Science Fellow

Christian Aganze is a Stanford Science Fellow at the Kavli Institute for Particle Astrophysics and Cosmology at Stanford University. His research interests are in the field of Galactic archeology. He uses a combination of simulations and observations of stellar streams to map the structure and evolution of the Milky Way. Aganze earned his Ph.D. in physics from UC San Diego.

Susan Clark

Assistant Professor

Susan Clark, a former NASA Hubble Fellow at the Institute for Advanced Study, is Assistant Professor of Physics at Stanford University, and a senior member of the Kavli Institute for Particle Astrophysics and Cosmology. Her primary research is in cosmic magnetic fields and the interstellar medium. Clark earned her Ph.D. from Columbia University in 2017.

Kavli Institute for Cosmology

UNIVERSITY OF CAMBRIDGE

Anthony Challinor

Kavli Institute Director

Anthony Challinor is a Professor of Cosmology and Astrophysics at the University of Cambridge, Deputy Director of the Institute of Astronomy and Director of the Kavli Institute for Cosmology at Cambridge. His research is in physical and theoretical cosmology, centered on the issue of testing the cosmological model and the origin of cosmic structure with cosmological observations. He earned his Ph.D. in theoretical physics from Cambridge in 1998.

Francesco D'Eugenio

Research Associate

Francesco D'Eugenio is a Research Associate in Extragalactic Astrophysics, with a joint position at the Cavendish Laboratory and Kavli Institute for Cosmology at the University of Cambridge. D'Eugenio earned his Ph.D. in astrophysics at the University of Cambridge.

Eloy de Lera Acedo

Associate Professor

Eloy de Lera Acedo is Associate Professor at the Cavendish Laboratory of the University of Cambridge and Principal Investigator of the REACH experiment. His research, funded by UKRI-STFC, is on 21-cm cosmology: Dark Ages, Cosmic Dawn, Epoch of Reionization. De Lera Acedo earned his Ph.D. in communication technologies from Universidad Carlos III de Madrid in 2010.

Kavli Institute for the Physics and Mathematics of the Universe

UNIVERSITY OF TOKYO

Jun'ichi Yokoyama

Kavli Institute Director

Jun'ichi Yokoyama is a Professor in the Department of Physics at The University of Tokyo and Director of the Kavli Institute for the Physics and Mathematics of the Universe. His research aims to comprehensively elucidate the history of the universe from its creation to the present by combining a top-down approach that clarifies the creation of the universe and various phenomena in the early universe based on fundamental physics theories. He earned his Ph.D. in physics from The University of Tokyo.

Tomoko Suzuki

Postdoctoral Research Associate

Tomoko Suzuki is a Research Associate at the Kavli Institute for the Physics and Mathematics of the Universe. Her research is in the formation and evolution of galaxies, with a focus on galaxies at redshifts 2-4 corresponding to the active growth period of today's massive galaxies and she studies the physical conditions of star-forming galaxies during this period using multi-wavelength observational data. Suzuki earned her Ph.D. in astronomy from the Graduate University for Advanced Studies, SOKENDAI in 2017.

Kavli Institute for Cosmological Physics

UNIVERSITY OF CHICAGO

Abigail Vieregg

Kavli Institute Director, not in attendance

Josh Frieman

Kavli Institute Director Representative

Josh Frieman is Professor of Astronomy and Astrophysics at the University of Chicago and a senior member of the Kavli Institute for Cosmological Physics. His primary research is in theoretical and observational cosmology, including studies of dark energy and dark matter, large-scale structure, strong and weak gravitational lensing, supernovae, and the early universe. Frieman earned his Ph.D. in physics from the University of Chicago in 1985.

Tom Callister

Eric & Wendy Schmidt AI in Science Fellow

Tom Callister is an Eric & Wendy Schmidt AI in Science Fellow at the Kavli Institute for Cosmological Physics at the University of Chicago. His research is centered on the use of gravitational-wave data to explore the compact binary population, probe the astrophysical and cosmological gravitational-wave backgrounds, and test understanding of fundamental physics. Callister earned his Ph.D. in physics at Caltech in 2020.

Jessica Zebrowski

Einstein and KICP Fellow

Jessica Avva Zebrowski is an Einstein Fellow from the NASA Hubble Fellowship Program at the Kavli Institute for Cosmological Physics at the University of Chicago. Her research centers on constraining cosmology by mapping the large-scale structure of the universe over time and she develops instrumentation and data analysis techniques for line intensity mapping and cosmic microwave background experiments. Zebrowski earned her Ph.D. in physics from UC Berkeley in 2022.

Kavli Nanoscience Institute

CALTECH

Julia Greer

Kavli Institute Director

Julia Greer is the Ruben F. and Donna Mettler Professor of Materials Science, Mechanics and Medical Engineering at Caltech and the Fletcher Jones Foundation Director of the Kavli Nanoscience Institute. Her research focuses on creating and characterizing classes of materials with multi-scale microstructural hierarchy, which often combine three-dimensional (3D) architectures with nanoscale-induced material properties. Greer earned her Ph.D. in materials science from Stanford in 2005.

Austin Minnich

Professor

Austin Minnich is Professor of Mechanical Engineering and Applied Physics at Caltech. His research focuses on advancing microwave and millimeter-wave technology used in radio astronomy, quantum information science, and other applications. Minnich earned his Ph.D. in mechanical engineering from MIT in 2011.

Kavli Institute of Nanoscience Delft

DELFT UNIVERSITY OF TECHNOLOGY

Gijsje Koenderink and Kobus Kuipers

Kavli Institute Co-Directors, not in attendance

Mazhar Ali

Kavli Institute Director Representative

Mazhar Ali is Associate Professor at Technische Universiteit Delft (TU Delft). He studies the 3Q's: Quantum Materials for their Quantum Properties to be used in Quantum Devices, from making crystals of new or important quantum materials, investigating their electronic and magnetic properties down to ultra-low temperatures (tens of mK), all the way to integrating them into nano-architectures to leverage those properties in new or improved electronic devices. Ali earned his Ph.D. in chemistry and materials from Princeton University in 2014.

Natalia Chepiga

Assistant Professor

Natalia Chepiga is an Assistant Professor at the Kavli Institute of Nanoscience in Delft, The Netherlands and holds a Visiting Professor position at the CNRS lab in Toulouse, France. She is an Associate Editor of the Physical Review Research. Her research focuses on quantum critical phenomena in strongly-correlated systems including quantum magnets and Rydberg-based quantum simulators and she is an active developer of tensor network algorithms that she often combines with the boundary conformal field theory to predict novel types of quantum phase transitions. Chepiga holds the title Docteur ès Sciences from the École Polytechnique Fédérale de Lausanne, Switzerland.

Kavli Institute for NanoScience Discovery

UNIVERSITY OF OXFORD

Carol Robinson

Kavli Institute Director

Carol Robinson holds the University Chair of Dr. Lee's Professor of Chemistry and is the first Director of the Kavli Institute for Nanoscience Discovery at Oxford. Recognized for establishing mass spectrometry (MS) as a viable technology to study the structure, function and interactions of proteins and their complexes, the central tenet of her research is that MS can provide unparalleled information on the structure, binding partners and dynamics of proteins, complementing other biophysical approaches yet a powerful tool in its own right. Robinson earned her Ph.D. from the University of Cambridge.

Philipp Kukura

Professor

Philipp Kukura is Professor of Chemistry and Fellow of Exeter College at the University of Oxford. His current research focuses on the application of light microscopy combined with mass measurement at the single molecule level to study biomolecular structure and interactions. Kukura earned his Ph.D. in chemistry from UC Berkeley in 2006.

Kavli Institute at Cornell for Nanoscale Science

CORNELL UNIVERSITY

David A. Muller and Dan Ralph

Kavli Institute Co-Directors, not in attendance

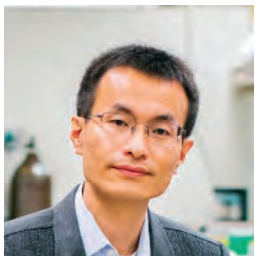
Yao Yang

Assistant Professor

Yao Yang is Assistant Professor of Chemistry at Cornell University starting in Fall 2024. His research focuses on developing multimodal operando electron microscopy and synchrotron based X-ray methods to address grand challenges in probing chemical dynamics of energy materials at solid-liquid interfaces across multiple spatiotemporal scales. Yang earned his Ph.D. in chemistry from Cornell University in 2021.

Kavli Energy NanoScience Institute

UC BERKELEY



Peidong Yang

Kavli Institute Director

Peidong Yang is the S.K. and Angela Chan Distinguished Professor of Energy and Professor of Chemistry at UC Berkeley and Director of the Kavli Energy NanoScience Institute. His primary research focus is semiconductor nanowires and the potential applications in computational nanotechnology, telecommunications, spectroscopic sensing, renewable energy, and the biological sciences. Yang earned his Ph.D. in chemistry from Harvard University in 1997.

Anex Jose

Incoming Kavli Postdoc Fellow 2024

Anex Jose is an incoming Heising-Simons Junior Fellow at UC Berkeley's Kavli Energy Nanoscience Institute. Jose is currently pursuing a Ph.D. in inorganic chemistry at Stanford University. He cites attending the Lindau Nobel Laureates Meeting in Chemistry in 2017 as a highlight, fueling his commitment to pushing the boundaries of catalysis and energy science.

Yi-Fan Zhao

Postdoctoral Fellow

Yi-Fan Zhao is a Postdoctoral Research Fellow at the Kavli Energy NanoScience Institute at UC Berkeley. His research focuses on the study of strongly correlated systems including quantum anomalous Hall effects and Wigner crystals. He earned his Ph.D. in physics from Pennsylvania State University in 2022.

Kavli Neuroscience Discovery Institute

JOHNS HOPKINS UNIVERSITY

Dwight Bergles

Kavli Institute Director

Dwight Bergles is a Professor of Neuroscience and Otolaryngology–Head and Neck Surgery at the Johns Hopkins University School of Medicine and Director of the Kavli Neuroscience Discovery Institute. His research focuses on glutamate transporters and glial involvement in neuronal signaling. Bergles earned his Ph.D. in molecular and cellular physiology from Stanford University in 1995.

Justus Kebschull

Assistant Professor

Justus Kebschull is Assistant Professor of Biomedical Engineering at Johns Hopkins University. His research aims to understand the structure and function of the brain, by taking a comparative approach and engineer molecular, viral, and sequencing technologies to measure neuronal connectivity networks and gene expression at scale in disease models and a wide range of vertebrates. Kebschull earned his Ph.D. in neuroscience at the Cold Spring Harbor Laboratory in 2017.

Genevieve Stein O'Brien

Assistant Professor

Genevieve Stein-O'Brien is Assistant Professor of Neuroscience, Brain Science Institute and Associate Director of JHU Single-Cell Training and Analysis Center. Her lab's research pairs computation and experimental methods to link cell intrinsic programs from single cell molecular profiling to cell extrinsic spatiotemporal context and downstream phenotypic consequences. Stein O'Brien earned her Ph.D. in 2017 from Johns Hopkins University School of Medicine.

Kavli Neural Systems Institute

THE ROCKEFELLER UNIVERSITY

Gaby Maimon

Kavli Institute Director, not in attendance

Winrich Freiwald

Kavli Institute Director Representative

Winrich Freiwald is the Denise A. and Eugene W. Chinery Professor of Neurosciences and Behavior at The Rockefeller University. He was recently named 2024 Kavli Prize Laureate in Neuroscience. He studies how the brain's visual system extracts social meaning from a face and then influences other circuits to generate emotional reactions, activate memories, direct attention, and guide social actions. Freiwald earned his Ph.D. in 1998 from the University of Tübingen.

Sachin Sethi

Postdoctoral Fellow

Sanchin Sethi is a Postdoctoral Scholar in the Maimon lab at The Rockefeller University. His research focuses on how neural circuits can be fine-tuned by the internal and external environment of the animal, with the long-term vision of identifying fundamental molecular mechanisms that are building blocks for cognitive processes across species. Sethi earned his Ph.D. in biological and biomedical sciences from UC San Diego in 2019.

Han Tan

Postdoctoral Fellow

Han Tan is a Kavli NSI Postdoctoral Fellow in Jeffrey Friedman's lab at The Rockefeller University. His research focuses on the cellular and molecular mechanisms of feeding and body weight regulation, as well as metabolic disorders such as obesity and diabetes. Tan earned his Ph.D. in neuroscience/biological chemistry from Johns Hopkins University in 2019.

Kavli Institute for Systems Neuroscience

NORWEGIAN UNIVERSITY OF SCIENCE AND TECHNOLOGY

Edvard Moser and May-Britt Moser

Kavli Institute Co-Directors, not in attendance

Emre Yaksi

Kavli Institute Director Representative

Emre Yaksi is a Professor at the Kavli Institute for Systems Neuroscience and Faculty of Medicine and Health Sciences at NTNU and an Associate Investigator at the Center for Molecular Medicine Norway in Norway. His research goal is to understand the fundamental principles underlying the function and development of neural circuits in health and disease. Yaksi earned his Ph.D. from the Max Planck Institute for Medical Research at the University of Heidelberg, Germany in 2007.

Soledad Gonzalo Cogno

Professor

Soledad Gonzalo Cogno is currently a group leader at the Kavli Institute for Systems Neuroscience, where she leads the Neural Dynamics and Computation Lab. Her research seeks to understand how the activity of individual neurons is coordinated at the neural network level, and how this coordination underlies cognition and behavior. Gonzalo Cogno earned her Ph.D. in computational neuroscience from the Balseiro Institute in Argentina.

Kavli Institute for Neuroscience

YALE UNIVERSITY

Stephen Strittmatter

Kavli Institute Director

Stephen Stittmatter is the Vincent Coates Professor of Neurology and co-founded the Yale Program in Cellular Neuroscience, Neurodegeneration and Repair. He is Director of the Kavli Institute for Neuroscience. His research focuses on understanding the molecular pathways that limit fiber growth and functional rewiring of neuronal circuits during health and disease and his long-term goal is to translate understanding of neurodegeneration and nerve fiber growth into therapeutic options for currently untreatable neurological diseases. Strittmatter earned his Ph.D. from Johns Hopkins in 1986.

Emilia Favuzzi

Assistant Professor

Emilia Favuzzi is an Assistant Professor in the Department of Neuroscience at Yale University. Her research aims to uncover the basic principles that govern neuroimmune interactions and their effects on brain health, with key areas investigating how immune information is encoded within cortical circuits and identifying the fundamental biological mechanisms underlying brain and behavioral disorders influenced by immune challenges, particularly during early life. Favuzzi did her doctoral training at the Institute of Neuroscience in Alicante, Spain and the Centre for Developmental Neurobiology at King's College London.

Aaron Kuan

Assistant Professor

Aaron Kuan is an Assistant Professor in the Department of Neuroscience at Yale School of Medicine and a Wu Tsai Institute Investigator. His research aims to apply circuit-mapping techniques at brain-wide scales to understand how brain wiring underlies cognition and neurological diseases. Kuan earned his Ph.D. in applied physics from the Harvard School of Engineering and Applied Sciences.

Kavli Institute for Fundamental Neuroscience

UC SAN FRANCISCO

Graeme Davis

Kavli Institute Director, not in attendance

Mercedes Paredes

Associate Professor

Mercedes Paredes is Associate Professor in the Department of Neurology and Neuroscience, Developmental and Stem Cell Biology, and Biomedical Sciences graduate programs at UC San Francisco. Her research focuses on identifying features of neuronal progenitor proliferation and migration that are unique to the gyrated brain, such as in humans, with an emphasis on the perinatal period. She is also a practicing neurologist that serves epilepsy patients with neurodevelopmental disorders. Paredes earned her Ph.D. in neuroscience from UC San Francisco.

Kavli Institute for Brain Science

COLUMBIA UNIVERSITY

Larry Abbott

Kavli Institute Co-Director

Larry Abbott is the William Bloor Professor of Theoretical Neuroscience and Professor of Physiology and Cellular Biophysics (in Biological Sciences), a Principal Investigator at Columbia's Zuckerman Institute and the Co-Director the Kavli Institute for Brain Science at Columbia University. His research focuses on building computer models to help understand how large groups of neurons work together to perceive and respond to the world. Abbott earned his Ph.D. in physics from Brandies University in 1977.

Daphna Shohamy

Kavli Institute Co-Director

Daphna Shohamy is Kavli Professor of Brain Science, Director and CEO of the Zuckerman Institute and Co-Director of the Kavli Institute for Brain Science at Columbia University. She studies learning and memory, from how facts are memorized or habits are slowly learned. She recently found that there is a lot more "cross talk" between these two forms of learning than previously thought. Shohamy earned her Ph.D. in neuroscience from Rutgers University.

Rudy Behnia

Assistant Professor

Rudy Behnia is Assistant Professor of Neuroscience and Principal Investigator at the Zuckerman Institute at Columbia University. She is interested in understanding the processing steps that transform light signals in photoreceptors into specific feature of a visual scene, with a goal to describe both the underlying mathematic operations that govern visual transformations and the neural circuits that implement these. Behnia earned her Ph.D. in cellular and molecular biology from the University of Cambridge in 2005.

Rainer Engelken

Postdoctoral Fellow

Rainer Engelken is a Postdoctral Research Fellow in the Mortimer B. Zuckerman Mind Brain Behavior Institute and the Center for Theoretical Neuroscience at Columbia University. He is interested in how information in the brain is processed by the coordinated interplay of many neurons and in particular how neural activity patterns are shaped by the wiring diagram, the connectome, and how changes at this level explain the reorganization of the collective dynamics during learning. He earned his Ph.D. in 2017 from the Max Planck Institute for Dynamics and Self-Organization.

Kavli Institute for Brain and Mind

UC SAN DIEGO | SALK INSTITUTE

Edward Callaway

Kavli Institute Co-Director

Edward Callaway is the Professor and Vincent J. Coates Chair in the Systems Neurobiology Laboratories at the Salk Institute for Biological Studies in La Jolla, California and Co-Director of the Kavli Institute for Brain and Mind. His research focuses on the organization and function of neural circuits in the visual cortex to better understand how specific neural components contribute to the computations that give rise to visual perception and to elucidate the basic neural mechanisms that underlie cortical function. Callaway earned his Ph.D. from Caltech.

Yishi Jin

Kavli Institute Co-Director

Yishi Jin is the Junior Seau Foundation Endowed Chair in Traumatic Brain Injury and Distinguished Professor in Neurobiology at UC San Diego and Co-Director of the Kavli Institute for Brain and Mind. Her research focuses on the molecular genetic mechanisms underlying the development and function of the nervous system using the nematode Caenorhabditis elegans, an organism that greatly facilitates studies at the subcellular resolution. Jin earned her Ph.D. from UC Berkeley.

Jingwen Li

Postdoctoral Fellow

Jingwen Li is a Postdoctoral Fellow in the Cortical System & Behavior Laboratory at the Department of Psychology at UC San Diego. Her research interest lies in the neural basis and population mechanism of spontaneous behavior, where the brain constantly processes sensory inputs and generates behavioral actions to interact with the environment. Li earned her Ph.D. in physics with a neuroscience concentration at the University of Arkansas in 2021.

Seahyung Park

Postdoctoral Fellow

Seahyung Park is a Postdoctoral Researcher at the Salk Institute. He earned his Ph.D. in biological sciences from the Korea Advanced Institute of Science and Technology in 2021.

Kavli Institute for Theoretical Sciences

UNIVERSITY OF CHINESE ACADEMY OF SCIENCES

Fuchun Zhang

Kavli Institute Director

Fuchun Zhang is Director of the Kavli Institute for Theoretical Sciences at the University of Chinese Academy of Sciences and a Visiting Professor in the Department of Physics at the University of Hong Kong. His research is in condensed matter theory, especially in the field of correlated electron systems such as high transition temperature superconducting copper oxides, quantum spin systems, and fractional quantum Hall effect. In recent years, Zhang's research has also expanded into the field of spin electronics in semiconductors with spin orbit couplings. Zhang earned his doctorate at Virginia Tech in 1983.

Masahiro Nozaki

Assistant Professor

Masahiro Nozaki is Assistant Professor at the Kavli Institute for Theoretical Sciences and Visiting Scientist at RIKEN Interdisciplinary Theoretical and Mathematical Sciences Program. His research focuses on non-equilibrium physics and quantum gravity in terms of quantum entanglement, proposing how to construct geometry in gravity dual of entanglement structure. Nozaki earned his Ph.D. in 2015 from the Yukawa Institute for Theoretical Physics at Kyoto University.

Kavli Institute for Theoretical Physics

UC SANTA BARBARA

Lars Bildsten

Kavli Institute Director

Lars Bildsten is the Frederick W. Gluck Chair in Theoretical Physics, Professor of Physics and the Director of the Kavli Institute for Theoretical Physics at UC Santa Barbara. His research spans the fields of stellar astrophysics, gravitational wave phenomena, and observational astrophysics. His current efforts are focused on theoretical puzzles raised by the remarkable observational progress in time-domain astrophysics; from exploding stars observed in distant galaxies to unusual binaries or pulsating and variable stars found in our own galaxy. Bildsten earned his Ph.D. in theoretical physics from Cornell University in 1991.

Fridtjof Brauns

Postdoctoral Fellow

Fridtjof Brauns is a Postdoctoral Fellow at the Kavli Institute for Theoretical Physics. He is fascinated by the ability of living systems to perform functions orchestrated by the interplay of many small components without a "conductor," and his research interests are self-organization in biology and theory of complex dynamical systems. Currently, he investigates tissue mechanics during morphogenesis with the goal to bridge cellular behaviors and tissue scale continuum theories. Brauns earned his Ph.D. from Ludwig-Maximilians-University of Munich.

Jessica Howard

Postdoctoral Fellow

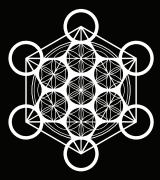
Jessica Howard is a Postdoctoral Scholar at the Kavli Institute for Theoretical Physics. Her research is in particle physics which aims to build a mathematical understanding of the forces of the universe, by studying interactions of the universe's smallest constituents: subatomic particles. Her research has two main components: developing possible mathematical models for how our universe works and using methods from machine learning and big data to develop tools to help test such models. Howard earned her Ph.D. in elementary particle physics at UC Irvine in 2022.

NOTES

NOTES

NOTES

NOTES



THE
KAVLI
FOUNDATION