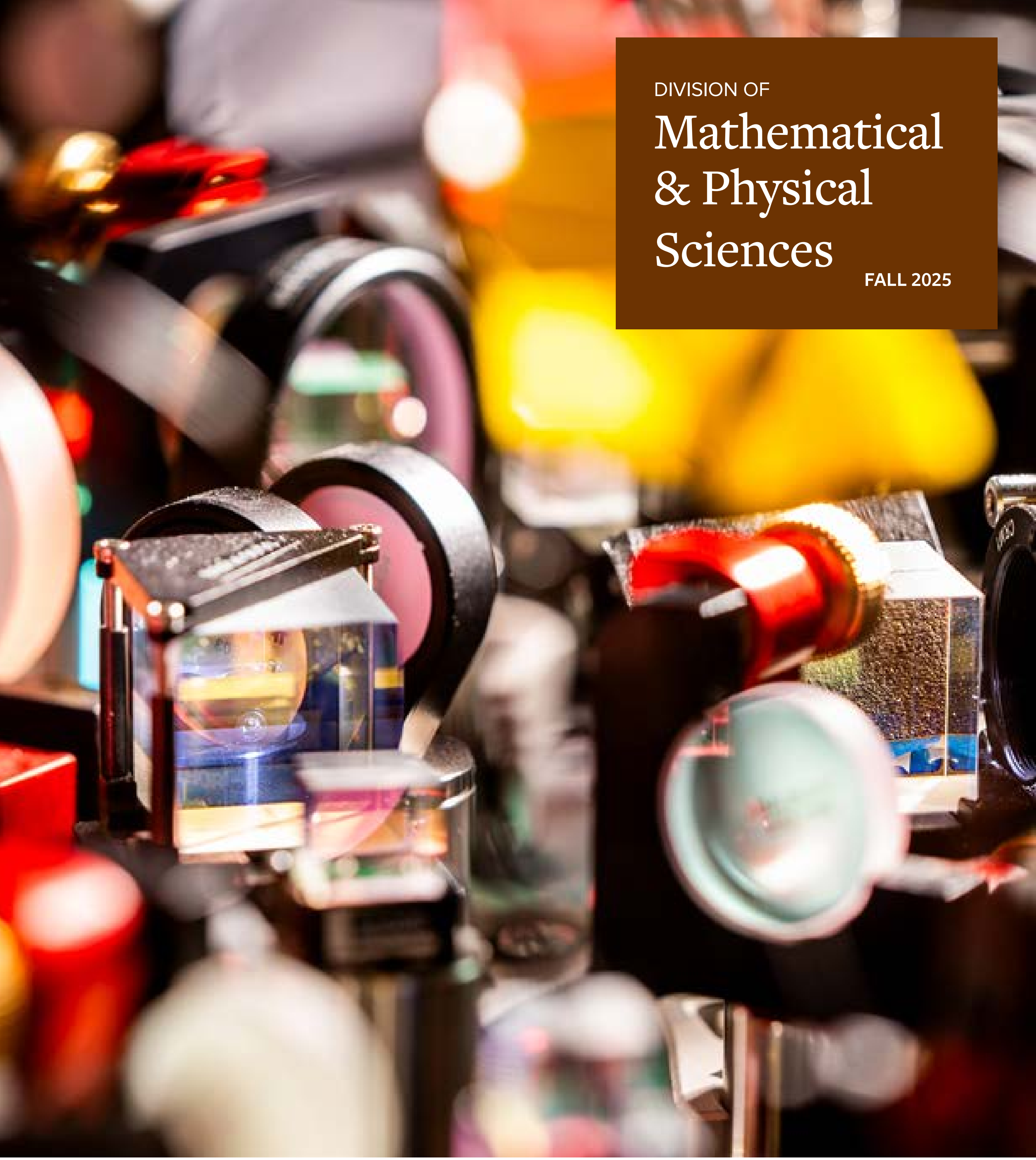


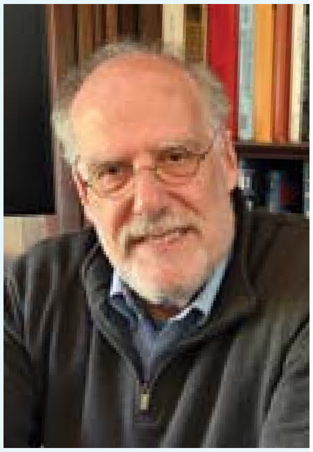
DIVISION OF
Mathematical & Physical Sciences

FALL 2025

UC Berkeley College of Letters & Science

ASTRONOMY | EARTH & PLANETARY SCIENCE | MATHEMATICS | PHYSICS

Letter from Dean Steven Kahn



Credit: Sarah Wittmer

Dear Friend of Mathematical & Physical Sciences,

It has been another invigorating year in our division. We continue to recruit extraordinary faculty: Lindy Elkins-Tanton and Wenbo Wu in Earth & Planetary Science; Ko Ohm, Amir Mohammadi, and Rahil Pradas in Mathematics; and Michael Bottom in Astronomy. These folks are all leaders in their fields, whose energy and vision are strengthening Berkeley's role at the forefront of fundamental science discovery. Their arrival infuses the division with new ideas in exciting research areas, and we are delighted to have them on board.

This has been a year of milestones across our departments. The United Nations named 2025 the International Year of Quantum Science and Technology, and indeed, this field has exploded at Berkeley. From Governor Gavin Newsom's recent visit to campus for an historic bill signing recognizing California's bold investment in quantum research, to Berkeley's own Professor John Clarke receiving the 2025 Nobel Prize in Physics — representing decades of pioneering work in quantum measurements that began in Birge Hall — this year has cemented quantum information science as the next frontier, with Berkeley at the helm. The creation of the new Roger Herst Quantum Nexus, an ambitious campus hub for collaborations in quantum research, industry building, and learning described on page 9, capitalizes on this moment. Our faculty and students are building the foundation of technology that will transform the century ahead.

In Astronomy, the James Webb Space Telescope and Vera C. Rubin Observatory are ushering in a "golden age" in the field, where new instrumentation is vastly expanding our view of the cosmos. Our researchers are seizing this unprecedented access to the universe's earliest light to make remarkable discoveries. In Earth & Planetary Science, I am excited by new research happening in marine science, as well as natural hazard prediction that are addressing the urgent challenges of a changing planet. And Mathematics is experiencing both growth and renaissance: It is now one of our largest majors, with undergraduates engaged in research that links areas of mathematics in exciting new ways.

Of course, we face challenges. We live in an era of growing skepticism toward science, and it is more important than ever to demonstrate the relevance and rigor of the scientific method. As Professor Clarke noted of his own Nobel-winning research, "We had no idea what would come of it" — a reminder that curiosity-driven inquiry is the foundation of future innovation. Sustaining that spirit will require continued investment in facilities and creative approaches to support large-scale scientific initiatives, especially amid uncertain federal funding.

Yet, I remain deeply optimistic. Every fall, I find renewed inspiration in the students I teach in my freshman seminar. Their passion and willingness to learn make me excited for the future of our division. Thank you for your continued support of science.

Fiat Lux,

Steve Kahn
Dean, Division of Mathematical & Physical Sciences

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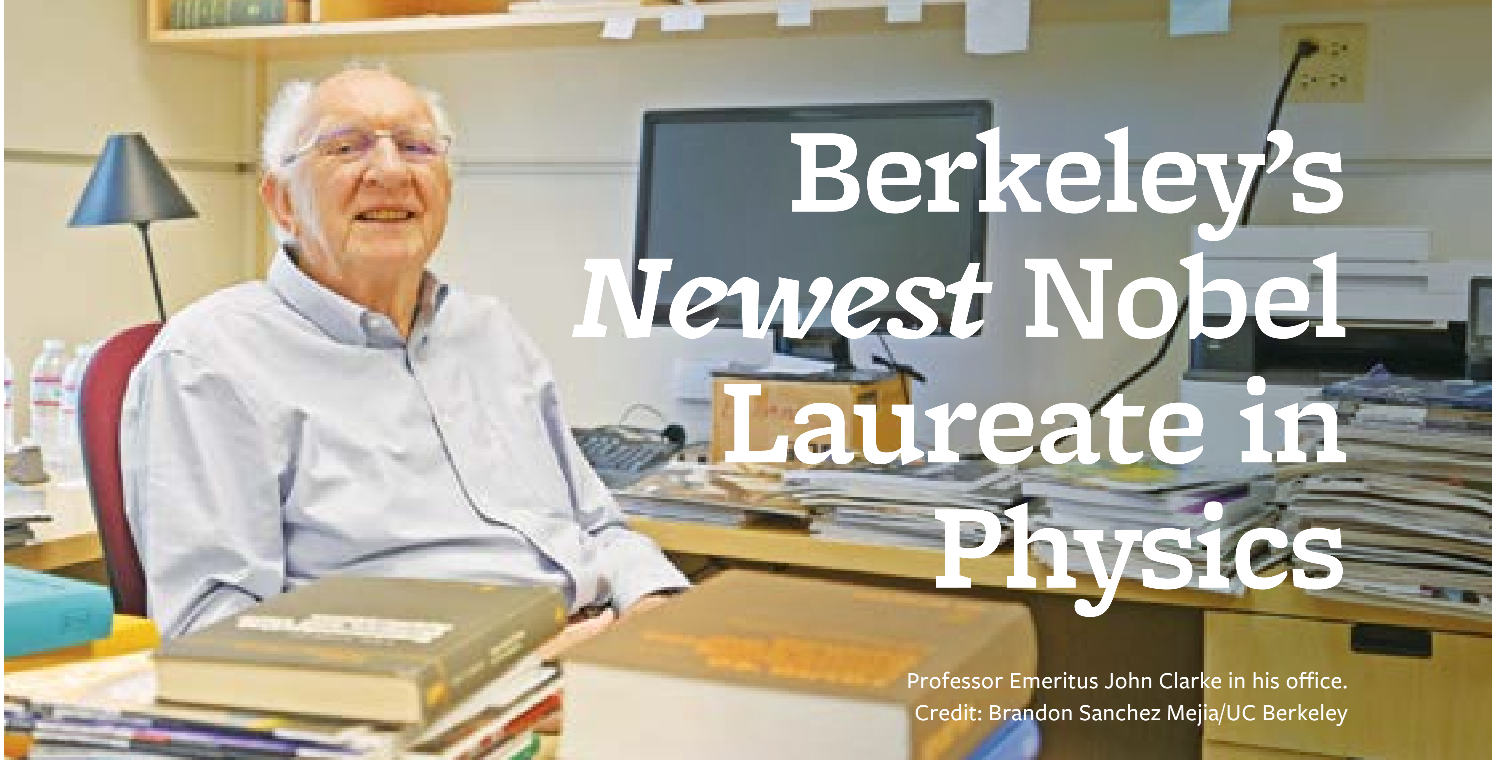
Cover: Laser optical systems in Professor Dan Stamper-Kurn's Ultracold Atomic Physics Lab, which constructs novel quantum mechanical systems in order to study fundamental quantum science.

Credit: Noah Berger



Berkeley's *Newest* Nobel Laureate in Physics

Professor Emeritus John Clarke in his office.
Credit: Brandon Sanchez Mejia/UC Berkeley

IN OCTOBER, THE NOBEL PRIZE IN PHYSICS FOR 2025 WAS AWARDED TO PROFESSOR EMERITUS JOHN CLARKE, who shares the honor, respectively, with his former graduate student and postdoctoral researcher, John Martinis and Michel Devoret, both affiliated with UC Santa Barbara. The trio were recognized for a pair of breakthrough experiments conducted 40 years ago at Berkeley proving that quantum mechanics operates at a scale larger than that of individual atoms.

It's long been known that at the subatomic scale, a single or paired electron can pass through a barrier, like a ball tossed against a solid wall that doesn't bounce back. This phenomenon is called tunneling. The Nobel Prize citation credits Clarke and his collaborators with "the discovery of macroscopic quantum mechanical tunneling and energy quantisation in an electric circuit."

This revelation laid the foundation for several decades of technological exploration and innovation of large-scale quantum physics that have expanded frontiers in computing and communications. "I think you wouldn't have an iPhone today — and you certainly wouldn't have anything that looks like a quantum computer today — unless you had this discovery," said Clarke. "[O]ur discovery enabled this to be applicable to something that you can consider to be a gigantic atom."

After Clarke joined the Berkeley faculty in 1969, his research group began exploring physical phenomena using superconductors that contained a Josephson junction, a thin insulating barrier that causes an electric current to exist with and without voltage. When he, Devoret, and Martinis began pondering an experiment to test whether electrons could be engaged to behave quantum mechanically at scale, Clarke said, "First of all, we had to understand how it was going to work, and then we had to fabricate it."

The team painstakingly designed a handheld circuit with two superconductors that could conduct a current free of electrical resistance. In this system, at ultracold temperatures, the electrons coalesced into a single quantum state, and the team successfully demonstrated macroscopic tunneling and quantized energy — both absorbed and emitted at discrete levels — as predicted by the theory.

For Martinis, "This was a fantastic experience, to be mentored by two wonderful people and great physicists," he said and being part of "a really well-functioning physics lab, where people are throwing ideas out and getting things to work right." He has strived to replicate that spirit throughout his career, including his current venture as co-founder and Chief Technical Officer of Qolab, which aims to build a practical, functional quantum computer with circuits composed of superconducting quantum bits, or qubits.

In hindsight, the Berkeley experiments were groundbreaking not just for the immediate results but for catalyzing considerable worldwide research into the quantum physics of electronic circuits. At the time, however, said Clarke, "Michel and John and I had no way of understanding the importance of this effect that actually led to our Nobel Prize," said Clarke. That's why, he added, "It's so important to do this basic science, because you don't know what the outcome is going to be."

New Observatory Embarks on Sweeping Search

ATOP CERRO PACHÓN, AT NEARLY 8,700 FEET IN THE ANDES FOOTHILLS OF NORTHERN CHILE, nights are dry, dark, and clear — optimal conditions for astronomical observation. There, the NSF-DOE Vera C. Rubin Observatory will soon initiate an intensive imaging survey of everything in the southern sky over the next decade. In June, the observatory released a few enticing initial images.

Those images foreshadow how the Legacy Survey of Space and Time (LSST) will reveal the dynamic nature of the cosmos like nothing before — capturing celestial events with exceptional frequency and unparalleled resolution and generating a trove of data eagerly awaited by astronomers and astrophysicists at Berkeley and around the world.

For **RAFFAELLA MARGUTTI**, the Marc and Cristina Bensadoun Professor of Physics, the Rubin Observatory promises to be "a discovery machine" guiding her future focus on multi-messenger astronomy, a way to study the various signals of light (and radiation) emanating from such transient cosmic events as an exploding star or merging black holes. "I hope to learn what new types of sources we should investigate next," Margutti said. "If Rubin could give us that clarity, and I believe it will, that would be amazing."

Building such a discovery machine required surmounting several technical challenges. Its telescope required a collecting area with an extremely wide field of view. Its stiff, sturdy mount needed to be nimble enough to pivot swiftly toward an eventful sector of space.

"This is the most instrumented telescope in the history of telescopes," said Dean of Mathematical & Physical Sciences

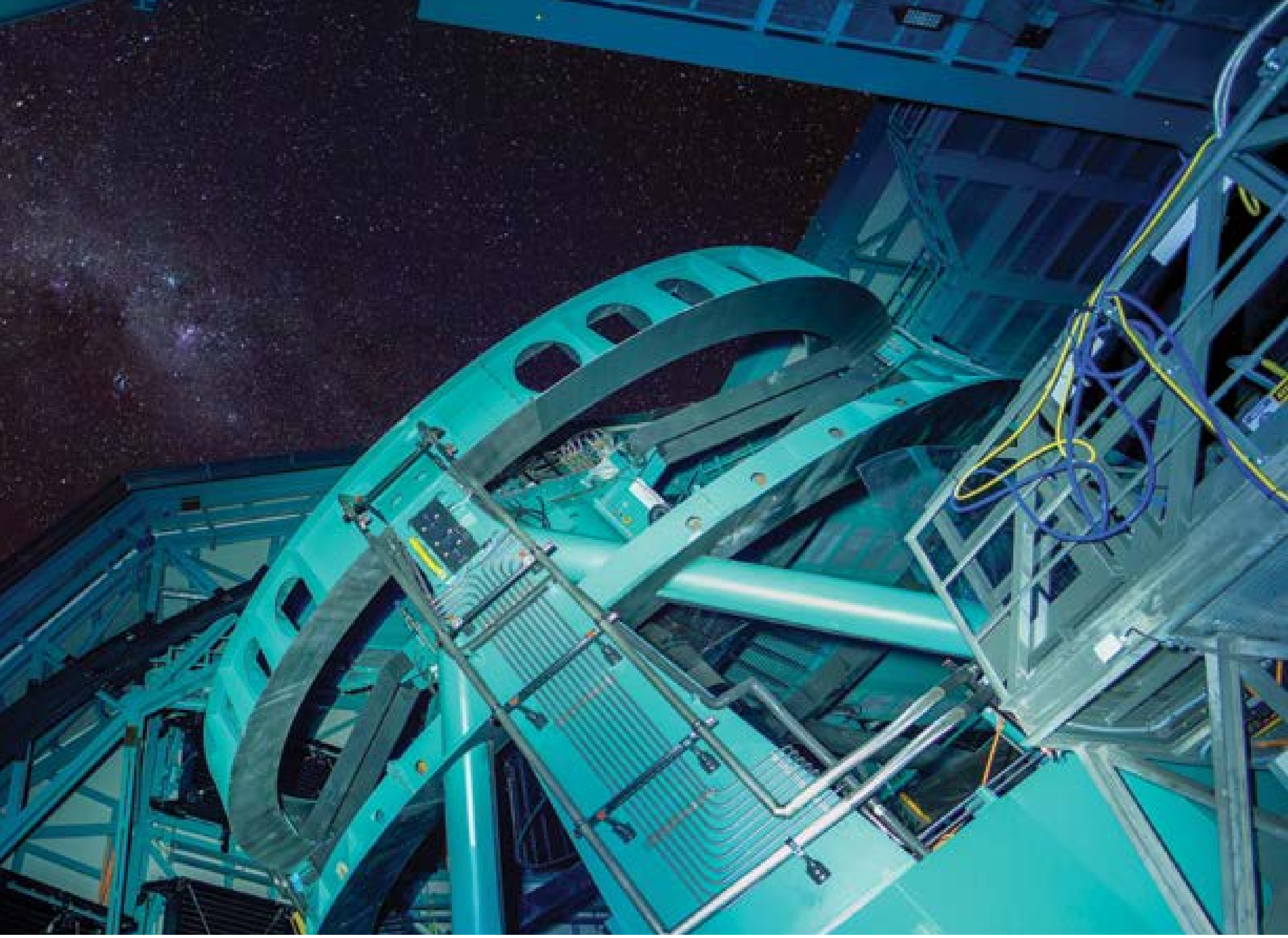
Inside the Rubin Observatory dome, the Simonyi Survey Telescope and companion LSST Camera have been specially designed to achieve an expansive and high-definition record of the cosmos.

Credit: RubinObs/NOIRLab/SLAC/NSF/DOE/AURA/W. O'Mullane

Steven Kahn, who helped conceive the Rubin Observatory project and served as its director from 2013 to 2022, when he joined Berkeley.

Rubin's Simonyi Survey Telescope features the largest field of view of any large telescope, encompassing ten square degrees of sky or the area occupied by 45 full moons. The novel mirror design maximizes light-collecting capability in a compact area by combining primary and tertiary mirrors as differently curved surfaces on a single substrate. This 8.4-meter mirror, which was ground and polished for seven years, faces the smaller secondary mirror that connects to the car-sized LSST Camera.

The 3,200-megapixel digital camera is the largest and most sensitive ever built. It contains three lenses — including one more than five feet in diameter, the world's largest high-performance optical lens — plus a carousel of filters for observing light across the spectrum, from near-infrared through optical wavelengths and into ultraviolet. The



camera's image resolution equals that of 400 ultra-high-definition televisions.

Named for the late astronomer Vera Rubin, whose observations and measurement of rotating galaxies provided early evidence for the existence of dark matter, the observatory has a multifaceted mission of scientific research: conducting a detailed solar system census; mapping the Milky Way to better understand how it formed and evolved; investigating the nature of dark matter and dark energy, the mysterious stuff making up most of the universe; and exploring the changing sky to capture dynamic, ephemeral events.

"You want to cover the entire sky, because you want to find the really rare things," said Kahn. "If you're not looking at it when it's happening, you've lost it." The Rubin Observatory not only covers a lot of sky but does so with exquisite sensitivity; the instruments can detect objects 100 million times dimmer than our eye can see, akin to spotting a candle flame from a thousand miles away.

Given Rubin's light-collecting power as it scans broad swaths of sky, Margutti knew that it could be optimal for finding the faint optical signals of gravitational waves. Ten years ago, even before the first-ever detection of gravitational waves, Margutti began lobbying to have some of Rubin's observing time spent seeking sudden unexpected activity. Her campaign, which grew to some 300 colleagues, made a compelling case; three percent of LSST's time will be reserved for Target of Opportunity observations that redirect the telescope to a spot in the sky where something unusual has occurred.

While Margutti hopes for an LSST detection of a neutron star merger, her colleague Dan Kasen, a professor of physics who models merging stars, supernovae, and other explosive cosmic phenomena, said, "Rubin's broad coverage of the sky will generate a vast dataset of transients, and this will allow us to explore the full landscape of stellar life and death, including finding rare and unusual events that may point to new types of astrophysical phenomena."

For more, please visit ASTRO.BERKELEY.EDU

Pursuing a Previously Frozen Planet

Analysis of this limestone outcrop in Oman provided intriguing chemical support for the Snowball Earth hypothesis.

PICTURE THE GLOBE WITH GLACIERS STRETCHED TOWARD THE EQUATOR, COATING TROPICAL OCEANS WITH ICE. This frozen world would persist for millions of years — until the climate shifted again to a superheated greenhouse, melting the glaciers and raising the seas. It sounds like the premise for an apocalyptic movie, but such a scenario likely unfolded more than once in Earth's history.

The Snowball Earth hypothesis posits that at certain times in the past the climate cooled to such an extent that glacial growth crossed a critical threshold, and albedo reflected so much solar radiation that ice reached across the ocean surface into low latitudes. With no rain, atmospheric carbon dioxide accumulated to a concentration that, combined with the output of volcanic gases, ultimately halted and reversed the cycle.

This idea has generated intense debate since its debut a few decades ago. Supporting evidence has emerged from dozens of sites for a pair of extensive, enduring glaciations occurring between 720–635 million years ago, during the aptly named Cryogenian Period preceding the origin of animals.

As an undergraduate at Caltech and a graduate student at Harvard, **FRANCIS MACDONALD** became intrigued by Snowball Earth as he studied under two of its proponents, Joe Kirschvink and Paul Hoffman. Now a professor in UC Berkeley's Department of Earth & Planetary Science, Macdonald said the many unanswered questions surrounding Snowball Earth "leaves open this space to actually be surprised and discover something really new." Macdonald and his colleagues recently did precisely that.

The geologist's pursuit of far-flung rock formations to reconstruct past environments took him to the Mirbat Group in Dhofar, Oman, where the pristine nature of the rocks caught his eye. "They're barely rocks," Macdonald said, "because they haven't been cooked up or metamorphosed." He could easily break them apart with his hands.

At the site, an outcrop of limestone up to four meters thick resembled "cap carbonates" elsewhere in the world thought to have formed as massive glaciers receded. Near the base of the limestone lay unsorted rocks of various sizes, as if dropped off during glacial retreat. Deposits of the durable mineral barite within the limestone could possibly contain chemical clues about the climate.

Because Snowball Earth proposes preventing fresh water locked up in ice from entering the oceans, a potential test of the hypothesis in candidate geologic deposits involves specific isotopes of strontium. A standard proxy in paleoceanography is the ratio of strontium-87, which is released by rivers after weathering from continental crust, to strontium-86, released at deep hydrothermal sources in oceanic crust. If Snowball Earth is correct, related geologic deposits should reveal $^{87}Sr/^{86}Sr$ values found in the deep ocean or Earth's mantle.

But there's a problem: Plate tectonics has carried and buried the bulk of ancient oceanic crust, returning it to the mantle at subduction zones along plate boundaries. Samples studied previously from Snowball Earth localities have not found the predicted strontium ratio. Macdonald said, "Our older geological records are really biased toward continental and shallow water environments, because we just don't preserve much of the deep water."

At UC Santa Barbara, where Macdonald taught before joining the Berkeley faculty last year, earth science undergraduate Ellery Renger approached him about a research opportunity. That led to Renger analyzing the samples from Oman using thermal ionization mass spectrometry to determine the strontium isotope proportions.

Renger's results initially puzzled the researchers, but further analysis convinced them that the limestone and barite bore strontium ratios suggestive of a mantle or deep-ocean source — a conclusion Renger considered "super exciting."

Besides providing a successful senior thesis, Renger's work earned her second author status on the study published in the journal *Geology* last June. Now she's a Berkeley doctoral student with Macdonald, studying an ancient shoreline in northern Namibia that could hold more evidence of Snowball Earth.

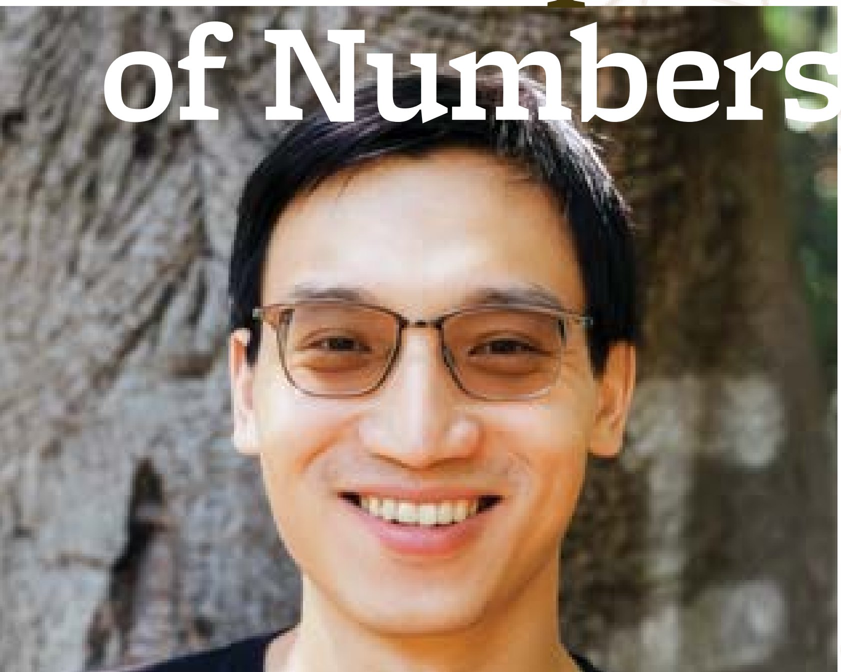
Macdonald intends to return to the spot in Oman where tectonic uplift fortuitously saved a slice of time from 661 million years ago, the climatic climax of the Sturtian glaciation that had lasted for 56 million years. The rocks that drew his attention had been deposited on a coastal slope beside a deepwater basin, their distinctive composition and textures depicting a landscape in transition from fully frozen to deeply submerged.

Glacial till surrounds a boulder that bears striations from being moved beneath an ancient ice sheet.

Next time, he'll be seeking signs of biological change in the wake of the snowball episode, such as whether algae supplanted bacteria as the ocean's primary producers, possibly setting the scene for the appearance of animals. As Macdonald said, "We'll see how the story evolves."

For more, please visit EPS.BERKELEY.EDU

The *Shape* of Numbers



Assistant Professor Tony Feng

ASSISTANT PROFESSOR **TONY FENG** STUDIES NUMBER THEORY and its connections to algebraic geometry, representation theory, and algebraic topology. What does that mean to a non-mathematician?

Number theory and algebraic topology have long been distant branches within mathematics, but in the last several decades their interplay has become one of the more powerful engines propelling pure research. Numbers have shape-like properties, and topological forms often behave arithmetically. The tools that work in one area can illuminate mysteries in the other.

Topology has efficient methods for organizing complicated information that number theorists can use to calculate the figures that populate their domain. In a complementary way, algebraic tools that were developed for numbers are starting to explain shapes.

"This is where my research begins," said Feng, who was awarded a prestigious Sloan Research Fellowship earlier this year. It's part of a very ambitious project to reinterpret arithmetic structures in number systems in geometric and topological terms. Rather than thinking about the algebraic properties of numbers, Feng is asking what kind of space do the numbers form, and what tools can measure that space. He isn't just borrowing topological language; his work uses topology to reveal new structural reasons behind previously known arithmetic symmetries.

Through this movement known as "spectral arithmetic geometry," Feng and his colleagues are finding common principles that underlie the foundations of algebra and geometry. They are uncovering how the logic of numbers and the logic of shapes provide two ways of examining the same deep structure.

As a middle schooler in Connecticut, Feng loved puzzles; that interest drew him into math. Before starting his PhD at Stanford, an internship at Microsoft Research involved encryption. He now pursues a kind of dual-track academic career: deeply abstract research and more applied teaching on cryptography. He's also contributing to the Google DeepMind team developing Superhuman Reasoning and does have concerns about what is on the horizon. Feng said, "Because AI at this point can already do undergrad-level problem sets, I say that mathematical training may be even more important. Because [training] is about thinking critically about arguments."

He worries that academia continues to be slow to understand the ramifications of AI, and friction from administrative bureaucracy slows responses even further. In his faculty role, Professor Feng participates in programs such as the Summer Research Institute in Algebraic Geometry that give undergrads a sense of the possibilities for original research in mathematics, exposing them to ways of approaching problems that many wouldn't usually see until they enter graduate-level training.

"It was inspirational for me to hear my advisor [Fields Medalist Akshay Venkatesh] joke that mentoring can be like watching a pot of water," said Feng. The old aphorism says that a watched pot never boils, "but even if it doesn't happen before your eyes, the water does eventually boil!"

This historic Masonic temple in downtown Berkeley will soon become the Roger Herst Quantum Nexus, an intellectual hub for quantum scientists, entrepreneurs, and policymakers.

Dean Steve Kahn and philanthropist Roger Herst cut ribbon at dedication in November.

Quantum Nexus to Power California's Research Regime

ON OCTOBER 3, PROUD ALUMS WERE CELEBRATING UC BERKELEY'S PAST AND PRESENT AT HOMECOMING. Five floors up, campus and state leaders were hailing its future.

Governor Gavin Newsom, UC President James Milliken, and a bipartisan group of state legislators convened in Campbell Hall for the signing ceremony of Assembly Bill 940. The new law will accelerate quantum development in the state.

The governor's decision to hold the event on campus was fitting. UC Berkeley is a leader in quantum information science. Just four days after the bill signing, a trio of scientists won the Nobel Prize in Physics for macroscopic quantum tunneling experiments they performed at Berkeley in the 1980s (see page 3), a discovery that in many ways started this field.

The new law grew out of discussions between Department of Physics Chair Irfan Siddiqi, Dean of Mathematical & Physical Sciences Steven Kahn, and several state lawmakers, including Assemblymember Buffy Wicks. Siddiqi and Kahn's central argument: Whoever owns quantum owns the future.

"They said to me, 'We're going to lose out on quantum unless we do something,'" Wicks recalled at the press conference. "We have the academic research to support these newer technologies. We have the private sector that wants to invest in this. We need the state to have skin in the game."

Chancellor Rich Lyons opened the event with a speech before resuming his Homecoming duties — "prime time for a chancellor," he noted. He plugged a new collaboration happening at UC Berkeley that will operationalize the vision set forth in A.B. 940. "We are establishing a Quantum Nexus," said Lyons, "which will be an interaction space devoted to something we specialize in...fueling and facilitating the open and free exchange of ideas between academia, industry, and the government. We see this as crucial to ensuring the partnership necessary to establish quantum information as the engine for the next major technical revolution in California and around the world."

Quantum information science (QIS) harnesses phenomena like superposition (matter that is in multiple states at once until measured) and entanglement (where groups of particles are intrinsically linked, even across great distances) to make large leaps in computing, sensing, and communication. By changing the physical basis of computation in a way that improves the speed and complexity of computer processors, the field could unlock profound advancements from cryptography to medicine.

For more, please visit PHYSICS.BERKELEY.EDU

Governor Gavin Newsom discusses Berkeley's quantum research with Physics Department Chair Irfan Siddiqi and students during a lab tour in October. Credit: Keegan Houser/UC Berkeley

The new Roger Herst Quantum Nexus will provide a single entry point for California scientists, students, industry representatives, and policymakers to access the quantum activity on UC Berkeley's campus and at the Lawrence Berkeley National Laboratory. Conveniently located at downtown Berkeley's Masonic Temple, the site will feature over 6,000 square feet of dedicated interaction space. UC Berkeley designed the floor plan with enough space to host visitors for short- and long-term stays. The relative proximity to Sacramento will also allow state officials to interact directly with faculty and industry experts.

Kahn is excited to host collaborative programs across quantum disciplines and beyond campus. "What was clear is that there was no natural and informal space where people could gather," said Kahn. "The idea behind the Quantum Nexus is that it's not periodic. We're going to hold our quantum seminars there every week, so the campus and lab community can come whenever they want, hear the talks, and interact with students and faculty." In addition to seminars, the Roger Herst Quantum Nexus will host workshops, networking opportunities, and industry-sponsored events in a space capable of fitting 300 people. Plans for an international conference are being explored.

Faculty leaders plan to use the Roger Herst Quantum Nexus to develop a roadmap for advanced quantum policy and education. These efforts will prepare the incoming workforce for quantum-related professions such as physicists, computer scientists, engineers, technicians, software professionals, corporate strategists, and salespeople.

"The notion is to build the workforce in California and make the state attractive for companies to stay or move here," said Kahn. "One of the big questions for the state's executive agencies is what sort of incentives are required. We don't know that offhand. That involves a lot of dialogue with companies to identify what they are looking for."

"We have a formula for success," said Newsom during the bill signing. "It didn't happen by chance. It's about investing in that conveyor belt for talent."

California's quantum startups attracted more than $110 billion in investments from venture capital firms in the first half of this year, according to Dee Dee Myers, the head of the Governor's Office of Business & Economic Development (or GO-Biz). This infusion of capital represented nearly two-thirds of all U.S. venture funding in the sector. GO-Biz officials have been meeting with campus leaders for 18 months to strategize how California can supercharge its quantum economy.

"UC Berkeley is at the forefront of quantum research and development," said Claire Cramer, the incoming executive director of Berkeley Quantum. "The new collaboration space will facilitate stronger partnerships with regional institutions and industry to connect students with jobs, drive innovation in the rapidly moving quantum technology space, and ensure that California's quantum economy remains both strong and in the public interest."

In her new role, Cramer will manage campus strategy around QIS, including oversight of the Roger Herst Quantum Nexus. Cramer has decades of experience in the federal government, including quantum policymaking jobs at the Department of Energy and National Institute of Standards and Technology.

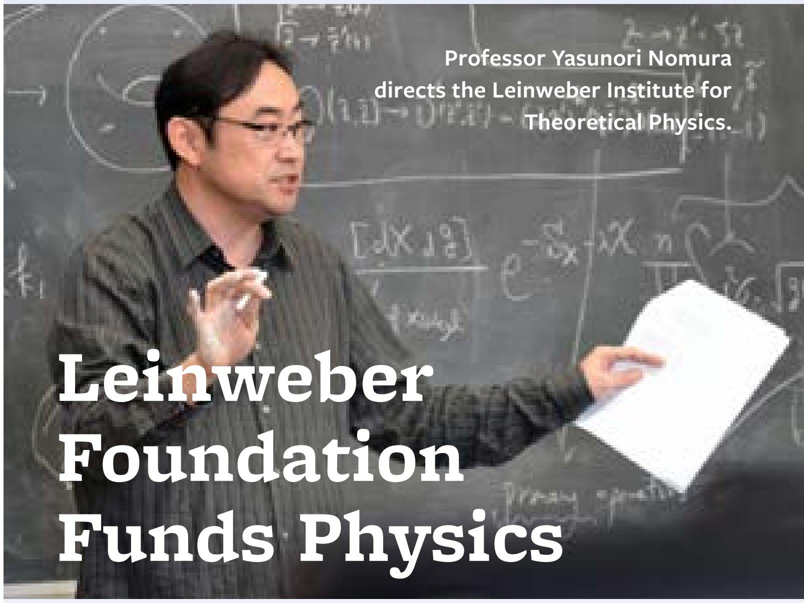
She will be building upon a robust quantum ecosystem. Sixty-five faculty members work on a range of quantum topics. According to The Quantum Insider, Berkeley researchers authored more quantum computing publications over the last 10 years than any other institution. Berkeley insiders expect that trend to accelerate as departments bring more research groups online — including a 2024 cluster hire of four quantum physicists.

Cramer also highlighted Berkeley's partnerships with and leadership roles in the Advanced Quantum Testbed, the National Quantum Initiative, the Quantum Systems Accelerator, the Simons Institute for the Theory of Computing, and the California-wide Challenge Institute for Quantum Computation. Combined, Cramer said these programs are "pushing boundaries of fundamental understanding of quantum computing while providing unique, specialized training to the next generation of quantum researchers."

Quantum mechanics is not intuitive, and Berkeley's researchers are searching for the right materials and tactics to turn theory into reality. However, as with any developing field, there are many different views on the best way forward. That dynamic has made industry-wide coordination difficult, as businesses tend to have a vested interest in advancing their own approach.

"Berkeley is unique as a leading quantum institution because we have faculty in a wide spectrum of different technologies that are viable possibilities for quantum computing," said Kahn. "We're not pushing one technology, so we're set up well to be an honest broker. You need that expertise across the board to understand what works best."

The road ahead is long, but California's leaders have full faith in Berkeley's research excellence. In November, the Governor's Office of Business and Economic Development hosted the Quantum California Launch and Summit at UC Berkeley to bring state lawmakers, industry leaders, and scientists from across the state to find strategic ways to advance QIS. If all goes according to plan, the Bay Area will reaffirm its role as the world's most vital engine of innovation.



Professor Yasunori Nomura directs the Leinweber Institute for Theoretical Physics.

Leinweber Foundation Funds Physics

UC BERKELEY IS BENEFITTING FROM LARRY LEINWEBER'S LIFELONG FASCINATION WITH PHYSICS. The software entrepreneur gave the largest philanthropic gift ever to the field of theoretical physics — a total of more than $100 million, with $14.4 million coming to Berkeley.

The investment by the Leinweber Foundation will support curiosity-driven research and advance the field across several aligned institutes. The Berkeley Center for Theoretical Physics has been renamed the Leinweber Institute for Theoretical Physics (LITP). The other affiliated institutions include, Caltech, the University of Chicago, MIT, the University of Michigan, Stanford, and the Institute for Advanced Study. They will work independently and collaboratively to pursue fundamental questions.

"At a time when many researchers are facing increasing constraints on public funding, this gift is a beacon," said Dean of Mathematical & Physical Sciences Steven Kahn. "This kind of support gives students and scientists the freedom to ask big questions and pursue discoveries that may take years to unfold, but that ultimately expand the frontier of knowledge."

Combined with additional campus funds, an endowment created from Berkeley's portion will provide ongoing support for graduate students, visiting scholars, workshops, conferences, and biannual convenings of the collaborating institutions. The funding will also enable recruiting four new postdoctoral researchers as Leinweber Physics Fellows.

Professor Yasunori Nomura, director of Berkeley's LITP, said, "This is transformative. The gift will really have a huge impact on a wide range of research at Berkeley, including particle physics, quantum gravity, quantum information, condensed matter physics, and cosmology."

For more, please visit PHYSICS.BERKELEY.EDU

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Berkeley's *Newest* Nobel Laureate in Physics

See page 3.

Dean Steve Kahn toasts new Nobel laureate John Clarke at a campus celebration. Professor Emeritus Clarke is the 10th Berkeley faculty physicist to receive a Nobel prize. Credit: Brandon Sanchez Mejia/UC Berkeley

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