THE FUTURE STARTS HERE

QUANTUM SCIENCE AND TECHNOLOGY AT UCLA
THE STUDY OF MATTER and its interactions at the most fundamental level, quantum physics asks questions that have the power to propel human society forward and reshape not only our understanding of the universe but potentially the universe itself.

Rooted in one of the most dynamic cities in the world, the nexus of UCLA and Southern California is the heartbeat of the field, priming us to lead quantum science and technology to unprecedented heights for the benefit of all.

The UCLA Center for Quantum Science and Engineering (CQSE) is a diverse group of nationally recognized scientists, thought leaders and educators who are driving the field of quantum science and engineering forward through collaborative research projects that tackle this field’s most challenging problems. JOIN US.
A JOINT EFFORT OF THE
UCLA College Division of Physical
Sciences and the Henry Samueli School
of Engineering and Applied Science,
UCLA CQSE coordinates research
and teaching activities in quantum
information science and technology
across UCLA, including:

» Cutting-edge research

» A first-of-its-kind professional
master’s degree in the field of
quantum science and technology

» A new off-campus facility for
academic-industry collaborations
and startup incubation

» Building a consortium of industry,
national laboratories, startups and
academics to advance the field and
develop new approaches to research,
innovation and education
Mark Gyure, executive director
Adjunct Professor, Department of Electrical and Computer Engineering

Eric Hudson, co-director, physical sciences
Professor and David S. Saxon Presidential Chair in Physics, Department of Physics and Astronomy

Kang Wang, co-director, engineering
Distinguished Professor and Raytheon Company Chair in Electrical Engineering, Department of Electrical and Computer Engineering

Richard Ross, education director
Program Director, Master of Quantum Science and Technology

Jens Palsberg, computer science advisor
Professor, Department of Computer Science

Barak Bussel, chair, UCLA CQSE strategic board

Clarice Aiello
Assistant Professor, Department of Electrical and Computer Engineering

Anastassia Alexandrova
Associate Professor, Department of Chemistry and Biochemistry

Christopher Anderson
Professor, Department of Mathematics

Amartya Banerjee
Assistant Professor, Department of Materials Science and Engineering

Louis Bouchard
Associate Professor, Department of Chemistry and Biochemistry

Wes Campbell
Associate Professor, Department of Physics and Astronomy

Justin Caram
Assistant Professor, Department of Chemistry and Biochemistry

Sergio Carbajo
Assistant Professor, Department of Electrical and Computer Engineering

Jason Cong
Chancellor’s Professor, Department of Computer Science

Lara Dolecek
Professor, Department of Electrical and Computer Engineering

Enrique López Droguett
Professor, Department of Civil and Environmental Engineering

Paul Hamilton
Assistant Professor, Department of Physics and Astronomy

Bahram Jalali
Professor, Department of Electrical and Computer Engineering

Hong-Wen Jiang
Professor, Department of Physics and Astronomy

Zhongbo Kang
Assistant Professor, Department of Physics and Astronomy

Laura Kim
Assistant Professor, Department of Materials Science and Engineering

Anshul Kogar
Assistant Professor, Department of Physics and Astronomy

David Leibrandt
Professor, Department of Physics and Astronomy

Jason Petta
Professor, Department of Physics and Astronomy

Vwani Roychowdhury
Professor, Department of Electrical and Computer Engineering

Yaroslav Tserkovnyak
Professor, Department of Physics and Astronomy

Paul S. Weiss
Professor, Department of Chemistry

Chee Wei Wong
Professor, Department of Electrical and Computer Engineering

Laura Kim
Assistant Professor, Department of Materials Science and Engineering

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Professor, Department of Electrical and Computer Engineering

Yaroslav Tserkovnyak
Professor, Department of Physics and Astronomy

Paul S. Weiss
Professor, Department of Chemistry

Chee Wei Wong
Professor, Department of Electrical and Computer Engineering
The current demand for workers in the quantum industry far outpaces the number of people with the knowledge and practical experience needed to apply for such positions. The new UCLA Master of Quantum Science and Technology (MQST) program, a professional degree program designed to prepare students for careers in research and development of quantum technologies, has launched to address this significant workforce gap.

Tailored to those who wish to pursue technical positions that require a unique combination of specialized knowledge and skills, this program addresses the needs of both students and industry while helping safeguard the future of the field.

The program consists of:

• A rigorous interdisciplinary course curriculum
• A year-long program of laboratory skills development
• An industry-relevant capstone internship

Students will learn how to work in a laboratory with quantum optics, quantum sensing and materials and quantum devices, and they will learn the algorithms, language and tools of quantum computing. A distinguishing feature of the UCLA MQST program is the significant laboratory component. Partnerships are ever evolving with industry leaders, national labs and startups to ensure a robust, diverse range of available internship opportunities.
QUANTUM INNOVATION HUB NAMING – $50,000,000
This gift will secure a visionary partner’s name on the QIH, the novel off-campus site owned by UCLA and occupied by UCLA faculty and researchers as well as key industry leaders, startups, growth-stage companies and other collaborators in the emerging field of quantum information science and technology. The Hub is a pioneering space, bringing together the deep domain of knowledge of academics, state-of-the-art technological capacities of industry and long-term government commitment to establish UCLA as the world leader in the future of this field.

PRIZE POSTDOCTORAL FELLOWSHIP PROGRAM – $10,000,000
This endowment will create a robust prize postdoctoral fellowship program that will assist with attracting the best scholars in quantum physics who can contribute to the UCLA CQSE’s long-term research goals as an integral part of the team. A thriving cohort of postdoctoral researchers constitutes a crucial component of any department. These scholars represent the next generation of faculty members, are fully immersed in pioneering research and make important contributions to the intellectual life of the department, serving as a bridge between graduate students and faculty.

ENDOWED CHAIR (WITH SALARY SUPPORT) – $5,000,000
This endowed chair with salary support will sustain a full-time faculty employee on a permanent basis. Endowed chairs help recruit and retain the highest-caliber faculty whose teaching and research exemplify UCLA’s mission, and they allow faculty to undertake innovative research not supported by federal grants.

CENTER FOR QUANTUM SCIENCE AND ENGINEERING ADMINISTRATIVE CHAIR – $2,000,000
This fund would create an endowed administrative chair to support the research, teaching and service activities of the chair holder, the executive director of the UCLA CQSE. This endowed chair would provide a remarkable base of financial support for the center’s groundbreaking research, as well as autonomy and flexibility to enable the executive director to invest in the center’s priorities and emerging opportunities.

ENDOWED GRADUATE STUDENT FELLOWSHIPS – $400,000+
Graduate students are essential to maintaining a world-class education for undergraduate students and helping faculty make significant breakthroughs in their research. Moreover, they are the future of quantum science in higher education, industry and a variety of other fields. Your gift would establish fellowships to support the most deserving graduate students based on merit, financial need or a combination of both, and it would enable the department to continue recruiting and maintaining top physics candidates from around the world.

*UCLA College Senior Dean and UCLA Division of Physical Sciences Dean Miguel García-Garibay is dedicating resources to inspire gifts that will transform the division’s future through support of endowed chairs. Qualifying gifts to establish an endowed chair in the Division will be matched by up to $1M. For example, a $4M gift will receive a match of $1M for a $5M endowment. Dean’s gift-matching funds are limited and available on a first-come, first-served basis until June 30, 2024; pledges are payable over a five-year period. Qualifying estate gifts made through an irrevocable testamentary pledge may also be matched at 50% during the donor’s lifetime (up to $1M). Estate gift matches are made on a case-by-case basis.
For more information on supporting the UCLA Center for Quantum Science and Engineering with a pledge gift or an irrevocable testamentary pledge, please contact Amber Buggs at amberbuggs@support.ucla.edu or (310) 994-5782.