

A life of passion for physics inspires giving

Professor Ling-Lie Chau (喬玲麗) Ph.D. '66, whose motion through space and time has been ever-forward, graduated from Berkeley in 1966 with a Ph.D. in theoretical physics — amongst the earliest of Berkeley's female graduates in that facet of the discipline.

Her story, her love of physics, and her path to Berkeley began early. In 1949, at the age of ten, she and her family were forced to flee Shanghai for Taiwan. In a fortunate turn, this brought her to the Tainan Girls' High School in Taiwan, where similarly uprooted elite intellectuals taught many classes. Her attraction to physics was cultivated in the classroom of an outstanding science teacher: **"I still remember my joy when I could understand centrifugal force!"** She went on to earn her bachelor's degree in physics in 1961 from National Taiwan University — and to gain admission as a graduate student at Berkeley.

"Berkeley's physics department was at the top of the world," says Professor Chau. In the midst of her time at Berkeley, the Free Speech Movement galvanized the campus. She was "an alert observer" during the crux of the Free Speech activities in 1964, and the movement further shaped her own spirit, fueling a career that would simply not acknowledge the possibility of boundaries.

As a first-year graduate student at Berkeley, she was awarded the IBM Fellowship — a pivotal moment in her education enabling her to live in International House and fully concentrate on her studies as she transitioned from life in Taiwan to Berkeley.

Her research at Berkeley evolved under the mentorship of Professor Geoffrey F. Chew. She and her cohort of 13 would gather weekly for a seminar with Professor

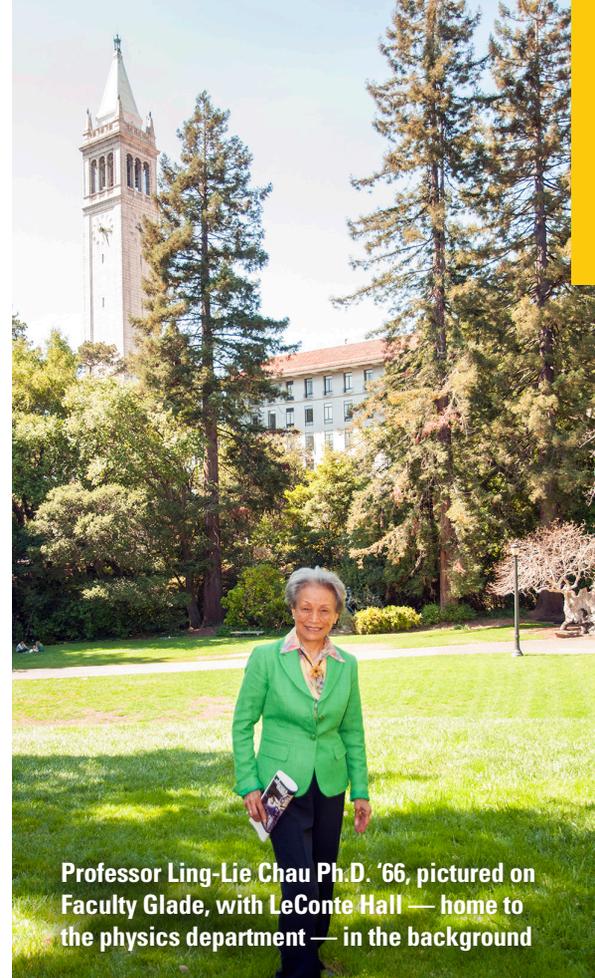
Chew in the Lawrence Laboratory — a popular event attracting postdoctoral researchers and faculty alike, and whose meetings were eventually moved to the professor's own home and hosted by he and his wife, Ruth. "Those meetings were so interesting and stimulating — not only discussing physics, but also anything under the sun," recalls Professor Chau.

After completing her Ph.D., she was recruited in 1967 as a visiting research member of the Institute for Advanced Study in Princeton, New Jersey, one of the world's leading centers for theoretical research and intellectual inquiry. Two years later, she was recruited by the Theory Group at Brookhaven National Laboratory in Long Island, New York, where she advanced to the position of senior physicist and was the Theory Group leader for several years during her 17-year career there. In both careers, she was the only female physicist among her colleagues. She was elected a Fellow of the American Physical Society in 1984, recognized for "her contributions to a broad range of elementary particle physics theory including Regge phenomenology, weak decays, W production, and Yang-Mills Theory."

Professor Chau was recruited to the faculty of UC Davis in 1986, becoming the first female professor in the physics department — and remaining its only female professor for eight years. She was recognized as "a Distinguished UC Davis Educator" by her students in 2004 with the Excellence in Education Award from the Associated Students of UC Davis. She retired in 2006 in order to concentrate on research — yet that hasn't stopped her from continuing to mentor Ph.D. candidates.



Professor Chau (center) with her mentor Professor Geoffrey F. Chew (left) and Professor Stanley Mandelstam (right), with whom Chau studied and later co-authored a paper. The three have enjoyed New Year's Eve dinner together since 1999. Photo, left: New Year's Eve 2007, courtesy Professor Ling-Lie Chau. Photo, top right: Keegan Houser



Professor Ling-Lie Chau Ph.D. '66, pictured on Faculty Glade, with LeConte Hall — home to the physics department — in the background

Professor Chau's deep appreciation for Berkeley and the opportunities that fueled her education spurred her to create a pivotal opportunity for students today. She established the *Ling-Lie Chau Excellence Award* in 2013 during The Campaign for Berkeley, supporting high-achieving first-year graduate students in physics. With student excellence taken as the first consideration, the award offers preference to female candidates. Professor Chau has also designated the remainder of her gift annuities plus her estate gifts to create the *Ling-Lie Chau Fellowship Fund in Theoretical Physics*. This fund will support Ph.D.-candidate graduate students at the Berkeley Center for Theoretical Physics, support specified for women until the theoretical physics faculty gender ratio has equalized. Professor Chau will plan to increase her donations to Berkeley as her good health and fortune continue.

Thanks to Professor Chau, talented, hard-working physics students now have new ways to set their own futures in motion. When students ask her advice, she says, **"Find what you cannot live without. Don't worry about what is hot or cold in the world — find and pursue what you love to do the most. Everything else will fall into place."** ●