



OFFICE OF THE CHANCELLOR

UNIVERSITY OF CALIFORNIA, SANTA BARBARA

February 2, 2018

Dear Members of our Campus Community,

I am deeply saddened to share with you the news that Professor Emeritus Joseph Polchinski passed away this morning, at home with his beloved wife, Professor Dorothy Chun. I had the honor of visiting with Joe and Dorothy on January 21 and expressing our enduring gratitude for Joe's leadership, collegiality, and monumental contributions to our campus and the global scientific community.

Dr. Polchinski joined our Physics faculty in 1992. He was a permanent member of our Kavli Institute for Theoretical Physics and the Pat and Joe Yzurdiaga Professor of Theoretical Physics. Prior to joining UC Santa Barbara, he was on the faculty at the University of Texas at Austin, and served as a research associate at the Stanford Linear Accelerator Center (SLAC) and at Harvard. He received his B.S. in Physics from Caltech and his Ph.D. in Physics from UC Berkeley. He became professor emeritus in March 2017, but continued to visit campus, attend lectures, and talk with colleagues. His memoir, *Memories of a Theoretical Physicist*, was published last year.

Professor Polchinski was a brilliant and original thinker, renowned for his discovery of D-branes, extended structures that appear to be central to the mathematics and physics of string theory, and most recently for his advancement of the black hole firewall hypothesis. He was the author of a widely used text on string theory, published by Cambridge University Press. Early career recognitions, including a Hertz Foundation Graduate Fellowship, a National Science Foundation Postdoctoral Fellowship, and an Alfred P. Sloan Fellowship, were followed by numerous honors for his leading contributions to fundamental physics. He was a Fellow of the American Physical Society and the American Association for the Advancement of Science, and a member of the National Academy of Sciences and the American Academy of Arts and Sciences. He was awarded the Dannie Heineman Prize for Mathematical Physics from the American Physical Society in 2007, the Dirac Medal of the International Center for Theoretical Physics in 2008, and the Physics Frontiers Prizes in 2013 and 2014. Just last year, he was awarded the 2017 Breakthrough Prize in Fundamental Physics, a \$3-million prize shared with two other physicists, "for transformative advances in quantum field theory, string theory, and quantum gravity."

Joe was known for climbing mountains, both intellectual and literal. Many of our colleagues fondly remember epic bike rides with him to the top of Gibraltar and Old San Marcos Pass, discussing life and physics all the way. He set his sights high and navigated fearlessly over all obstacles in order to achieve the extraordinary, encouraging and inspiring others along the way.

His research has had a profound and lasting impact on our understanding of the universe. Throughout his career, he demonstrated tremendous creativity and insight not only in discovering new scientific truths, but also in communicating these complex ideas in a highly accessible and thought-provoking way. I still vividly remember his lively Faculty Research Lecture in 2014 on "Space-Time Versus the Quantum." Through his bold ideas, unique insights, and rigorous pursuit of the deepest and most challenging questions, he left an indelible mark on all who were fortunate enough to learn from him and collaborate with him.

Professor Polchinski will be dearly missed by our entire UC Santa Barbara family. Our hearts and thoughts go out to Dorothy and their sons, Steven and Daniel, and to all of Joe's family, friends, and colleagues around the world. Our campus flag will be lowered in his honor.

Sincerely,

Henry T. Yang
Chancellor