



# J. Robert Oppenheimer Memorial Committee

A full color version of this newsletter and more information about the Committee can be found at [jromc.org](http://jromc.org)



## Dr. Jennifer Doudna: 2020 J. Robert Oppenheimer Memorial Lecturer

Dr. Jennifer Doudna, a discoverer of a revolutionary gene-editing technique, will deliver the 2020 J. Robert Oppenheimer Memorial Lecture. She is Professor of Biochemistry, Biophysics and Structural Biology at the University of California at Berkeley.

In 2012, Dr. Doudna published a paper that describes a gene-editing technology known as CRISPR-Cas9. That report is now considered by some scientists to be the discovery of the century. CRISPR-Cas9 provides a relatively easy way to alter or edit the DNA in any organism.

Dr. Doudna has helped to organize international meetings to discuss how genome engineering could affect health care, agriculture, and the environment. As a result of these meetings the scientific community has been urged to refrain from using genome-editing tools to modify human embryos until the method is better understood.

The lecture is scheduled for July 13, 2020 at the Duane Smith Auditorium.

## The 2019 J. Robert Oppenheimer Memorial Lecture:

Nobel Laureate Kip Thorne Delivers 48th JRO Memorial Lecture to Standing Room Only Audience

by Alison L. Pugmire, Chair, JROMC

The JROMC proudly hosted the 48th JRO Memorial Lecturer, Professor Kip S. Thorne, on the evening of May 6, 2019 at the Duane W. Smith Auditorium (DSA) at Los Alamos High School. Prof. Thorne is a Feynman Professor of Theoretical Physics, Emeritus, at the California Institute of Technology, and 2017 Nobel Laureate in Physics. His lecture was entitled “A Brief History of Black Holes: From Oppenheimer to LIGO.”

There was great anticipation prior to the event, given how well known Prof. Thorne is for his published works (e.g. “*Gravitation*,” 1973 and “*Time Warps: Einstein’s Outrageous Legacy*,” 1994), his ability to communicate complex ideas in a way understandable by the general public, his co-conception/executive producer status for the popular movie, *Interstellar*, and his most recent cameo appearance on the popular television series, “*The Big Bang Theory*” (April 4, 2019 airing, Season 12, Episode 18).

The evening opened with welcoming remarks from myself, as chair of the JROMC, followed by an introduction of Prof. Thorne by the Director of the Los Alamos National Laboratory, Thom Mason. The lecture then followed and captivated the attention of all with glorious images of our universe, the first-ever image of a black hole captured by LIGO (Laser Interferometer Gravitational-Wave Observatory),<sup>1</sup> and an explanation of the phenomena of black holes that was comprehensible to the entire audience. As is tradition for the JROMC, the evening closed with a public reception in honor of our distinguished lecturer. This year, the reception was held in the newly renovated annex of the DSA and drew a large crowd that lasted late into the evening.

Overall, the event was wildly successful and exceeded everyone’s expectations in filling the DSA to capacity. It was the largest crowd ever drawn for this lecture series, which has a long tradition of hosting outstanding men and women since 1972, including Hans Bethe, Linus Pauling, James Watson, and Marcia McNutt, among others.



*Kip Thorne in May 2019 with nine of our 2019 Scholarship winners – Photo by Christine Hazard*

DVDs of this year's lecture (as well as the 2018 lecture) are available at Mesa Public Library, the UNM-LA Library, the LANL Research Library, and Topper Library at Los Alamos High School for public viewing, in addition to a broadcast on YouTube.

<sup>1</sup> Professor Thorne, Rainer Weiss, and Barry Barish received the 2017 Nobel Prize in Physics for “decisive contributions to the LIGO detector and the observation of gravitational waves.” (<https://www.nobelprize.org/prizes/physics/2017/press-release/>)

## The Ten Students Awarded JROMC Scholarships for 2019

The following 2019 graduating seniors received scholarship awards from the J. Robert Oppenheimer Memorial Committee. Scholarships are by application only. Information is available on the JROMC website ([jromc.org](http://jromc.org)). We are proud of these young women and men and look forward to the highly significant contributions they will make to society.

*From Pojoaque Valley High School:*

**Noelia Topete** for showing exceptional promise in science and medicine. JRO Scholarship in memory of Satch Cowan and funded by the Delle Foundation.

**Taylor Roybal** for exceptional promise of future contributions to society. JRO Scholarship funded by the Los Alamos National Bank.

*From Capital High School:*

**Elizabeth Walker** for showing exceptional promise of future contributions to society and planning to attend a New Mexico institution of higher education. JRO Scholarship sponsored by the New Mexico Consortium.

**Ariana Garcia** for outstanding promise in the mathematical sciences. JRO Scholarship in memory of Nicholas C. Metropolis.

*From Los Alamos High School:*

**Steven Zhao** for outstanding promise in science and mathematics. JRO Memorial Scholarship supported by the J. Robert Oppenheimer Memorial Committee.

**Amanda Li** for exceptional promise of future contributions to society and planning to attend a New Mexico institution of higher education. JRO Scholarship sponsored by the New Mexico Consortium.

**Jonathan Doorn** for a student with an excellent academic record who has demonstrated a significant interest in classical music. JRO Scholarship in memory of Rosalie Heller.

**Sonya Williams** for outstanding promise in the arts or sciences. JRO Scholarship in memory of Juliamarie Langham Grilly.

**Christopher Koh** for outstanding promise in the mathematical sciences. JRO Scholarship in memory of Nicholas C. Metropolis.

**Joseph Sarrao** for outstanding academic achievements. JRO Scholarship in memory of Nancy Laubach Freed.

There were no applicants for scholarships available to students from Santa Fe High School.

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## New Scholarship Funded by the Los Alamos High School Class of 1969

The LAHS Class of 1969 has decided to fund a JROMC Scholarship every other year beginning in 2020. The scholarship is intended to support a graduating senior who intends to pursue a career in K-12 education. For more information see the *Los Alamos Daily Post*, November 6, 2019. We are deeply appreciative of this recognition of J. Robert Oppenheimer and his contributions to education.

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## The JROMC Invites Your Support

The JROMC is a 501(c)(3) organization that relies solely on contributions for funding its activities. For more information, see [www.jromc.org](http://www.jromc.org). Please help us by supporting the JROMC scholarships and lectures. You may donate online as well at <http://jromc.org/index.php/donate-3> or clip off the form on the back page and send it with your check to

The J. Robert Oppenheimer Memorial Committee

P. O. Box 220

Los Alamos, NM 87544

Thank you!

*All contributions are tax deductible and directly support our annual lecture and scholarship program.*

*The JROMC was established in 1970 to honor the memory of J. Robert Oppenheimer, the founding director of Los Alamos Laboratory. Under Oppenheimer's leadership an unprecedented wartime task was brilliantly accomplished; from him flowed a continuing legacy of exceptional scientific achievement.*

## In Memoriam

We mourn the passing in June of two members who have made outstanding contributions to the mission of the J. Robert Oppenheimer Memorial Committee: Fred Ribe (1924-2019) and Maurice (Mauri) Katz (1937-2019). Both came to Los Alamos relatively early in their careers. After working at the Laboratory for several years each accepted positions elsewhere but later retired to Santa Fe. Each served on the JROMC for some fifteen years.

Fred Ribe was a steady and experienced voice for our committee and served as our chair in 1994-95. In 1954 while in Los Alamos, Fred organized a national petition drive which drew hundreds of signatures of scientists protesting the revocation of Robert Oppenheimer's security clearance. Although unsuccessful, the petition drew much attention, and Fred's feelings about the matter were evident again back in Los Alamos years later. He strongly supported the committee's multi-year, multi-faceted attempt with the same goal. The effort was again not successful. Instead, the U.S. Department of Energy re-named a pilot program as the Oppenheimer Science and Energy Leadership Program. Fred loved the outdoors: fishing, hiking and skiing. He also enjoyed singing with choral groups in Los Alamos and Santa Fe. Fred's professional career is recorded in the following links: <https://archiveswest.orbitascascade.org/ark:/80444/xv22079#top> and <https://aip-info.org/1XPS-6DF9Z-F5C9T4BCFE/cr.aspx>.

Mauri Katz always had sound advice about committee matters, particularly in how we managed our resources. He was very involved with our scholarship program, which recognizes outstanding graduates of high schools in Los Alamos and the nearby region. He flew private aircraft, drove sports cars, was active in the theater scene in Los Alamos, and strongly supported the Jewish communities in Los Alamos, Santa Fe and Albuquerque. Mauri's career included stints in Washington and Vienna. Contacts made then stood our committee in good stead as, for example, we considered potential presenters of our Oppenheimer Memorial Lectures.

Both of them will be sorely missed.

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## Quote from Uval Noah Harari

*Sapiens, A Brief History of Humankind, p. 372*

“The Nobel Peace Prize to end all peace prizes should have been given to Robert Oppenheimer and his fellow architects of the atomic bomb. Nuclear weapons have turned war between superpowers into collective suicide, and made it impossible to seek world domination by force of arms.”



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