

Association of Universities for Research in Astronomy

aura-astronomy.org

Our Mission

“AURA provides innovative, open resources to enable discovery and excellence in research, to unify the astrophysics communities, and to promote public understanding of our universe and the benefits of scientific exploration.”



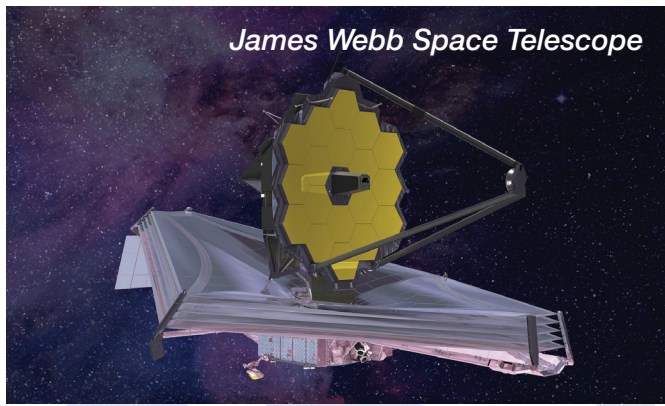
The Association of Universities for Research in Astronomy (AURA) is a consortium of 47 US institutions and 3 international affiliates that operates world-class astronomical observatories for the National Science Foundation (NSF) and NASA. AURA's role is to establish, nurture, and promote public observatories and facilities that advance innovative astronomical research. In addition, AURA is deeply committed to public and educational outreach, and to diversity throughout the astronomical and scientific workforce. AURA carries out its role through its astronomical facilities.

AURA is responsible for the successful management and operation of its three centers: NSF's NOIRLab; NSF's National Solar Observatory (NSO); and the Space Telescope Science Institute (STScI).

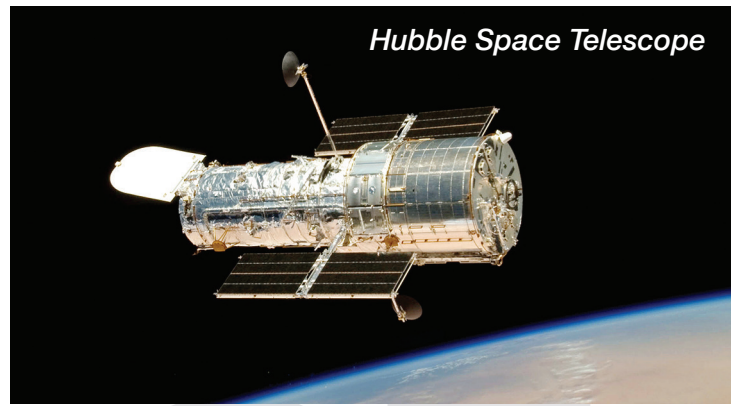


To learn more about current job opportunities visit our job board at <https://www.aura-astronomy.org/careers/>

[aura-astronomy.org](https://www.aura-astronomy.org)



James Webb Space Telescope



Hubble Space Telescope

SPACE

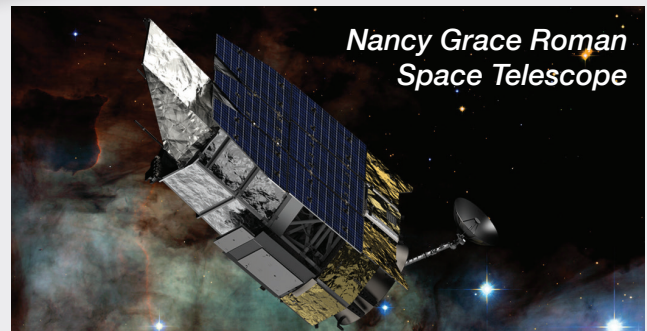
Space Telescope Science Institute Expanding the Frontiers of Space Astronomy

stsci.edu

Space Telescope Science Institute (STScI), operated by AURA for NASA, is a multi-mission operations center for NASA's flagship observatories and a world-class astronomical research center. STScI is responsible for the science program for the **Hubble Space Telescope** and for science and flight operations for NASA's flagship, the **James Webb Space Telescope**, launched in 2021.

STScI has developed and executed the science program for the Hubble Space Telescope since its launch in 1990. Hubble continues to revolutionize astronomy and expand our knowledge of the Universe. More than 15,000 astronomers worldwide have used Hubble and published Hubble results.

Webb telescope will maintain US leadership in space science and peer 100 times deeper into the universe than Hubble. STScI is also developing science operations for NASA's **Nancy Grace Roman Space Telescope**, which has a field of view 100 times greater than Hubble with similar sensitivity and resolution.



Nancy Grace Roman Space Telescope

Looking forward, STScI is studying advanced space telescope concepts for future large missions in the 2030s and beyond, in a quest to answer the question: "Are we alone?"

The **Barbara A. Mikulski Archive for Space Telescopes** (MAST) is one of the world's most widely used data archives. It offers users convenient search-and-retrieval utilities for accessing more than 340 terabytes of data from Hubble and other NASA astrophysics missions, as well as several ground-based surveys. A notable recent addition is the Hubble Source Catalog, a database containing more than 100 million measurements of stars and galaxies that is being used for large-scale data mining in the 25 years of Hubble observations.

SOLAR

NSF's National Solar Observatory

Unlocking the Mysteries of the Sun

nso.edu

NSF's National Solar Observatory (NSO) is the national center for ground-based solar physics in the United States. The mission of the NSO is to advance knowledge of the Sun, both as an astronomical object and as the dominant external influence on Earth, by providing forefront observational opportunities to the research community. The mission includes the operation of cutting edge facilities, the continued development of advanced instrumentation both in-house and through partnerships, conducting solar research, and educational and public outreach.

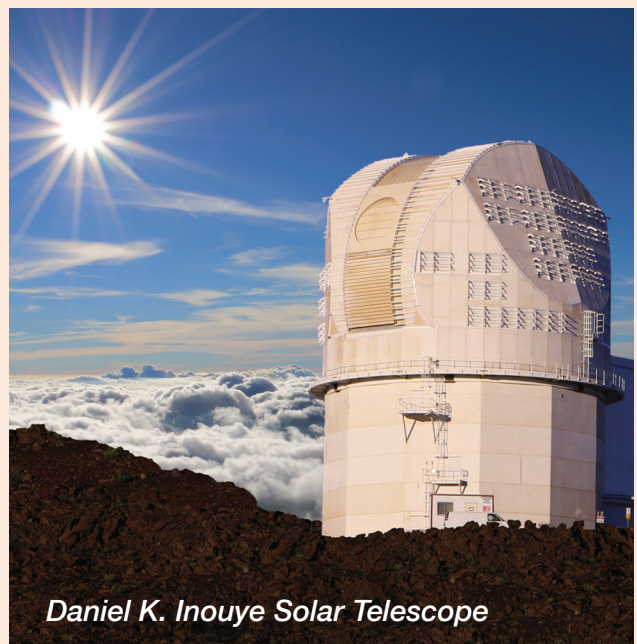
NSO leads the operation of the **NSF's Daniel K. Inouye Solar Telescope**, a four-meter solar telescope on the island of Maui, Hawai'i. The largest solar telescope in the world, it focuses on understanding the Sun's dynamic behavior by observing solar magnetic fields. A combination of cutting edge technology and innovative design will produce the first ongoing measurements of the magnetic fields in the Sun's corona. The Inouye Telescope's 4-meter mirror enables views of the solar atmosphere like we've never seen before.

The **NSO Integrated Synoptic Program** (NISP) operates a six-station global network (the "GONG network") that has observed the Sun for more than 20 years. The world-wide distribution of telescopes means at least one is trained on the Sun at all times providing continuous imaging of the Sun and its solar magnetic field. This network of extremely sensi-

tive solar imagers is a crucial asset for space weather operational forecasting.

The goal of **NSO's Community Science Program** (NCSP) is to develop analysis and modeling tools that will enhance the value of data taken with NSO's observing facilities – the Inouye Solar Telescope and NISP. An integral part of this initiative is to train the next generation of Solar Physicists in the use and development of these tools.

NSO is operated by AURA under a cooperative agreement with the National Science Foundation Division of Astronomical Sciences.



Daniel K. Inouye Solar Telescope

NSF's NOIRLab

Discovering our Universe Together

noirlab.edu

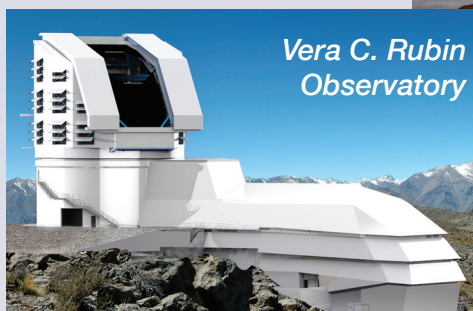
NSF's National Optical-Infrared Astronomy Research Laboratory (NOIRLab) is the preeminent US national center for ground-based, night-time optical and infrared astronomy. The mission of NOIRLab is to enable breakthrough discoveries in astrophysics by developing and operating state-of-the-art ground-based observatories and providing data products and services for a diverse and inclusive community.

Through its five programs — **Cerro Tololo Inter-American Observatory** (CTIO), **the Community Science and Data Center** (CSDC), **Gemini Observatory**, **Kitt Peak National Observatory** (KPNO) and the **Vera C. Rubin Observatory** once operational — NOIRLab serves as a focal point for community development of innovative scientific programs, the exchange of ideas, and creative development. The lab's infrastructure enables the astronomy community to advance humanity's understanding of the Universe by exploring significant areas of astrophysics, including dark energy and dark matter, galaxies and quasars, the Milky Way, exoplanets, and small bodies in our own Solar System.

In collaboration with the astronomical community, partner organizations, other US optical and infrared system operators, and NSF, NOIRLab develops and advances a strategic vision for NSF-funded future optical and infrared facilities.

The astronomical community is honored to have the opportunity to conduct astronomical research on Iłkam Du'ag (Kitt Peak) in Arizona, on Maunakea in Hawai'i, and on Cerro Tololo and Cerro Pachón in Chile. NOIRLab recognizes and acknowledges the very significant cultural role and reverence that these sites have to the Tohono O'odham Nation, to the Native Hawai'ian community, and to the indigenous peoples of Chile, respectively.

AURA operates these facilities and NOIRLab under a cooperative agreement with the National Science Foundation (NSF).



GROUND



MEMBERS

INSTITUTION	MEMBER SINCE	INSTITUTION	MEMBER SINCE
Boston University	1993	Stanford University	2012
California Institute of Technology	1972	Stony Brook University	1986
Carnegie Institution for Science	1997	Texas A&M University	2014
Carnegie Mellon University	2017	The University of Texas at San Antonio	2019
Cornell University	2016	Universidad de Chile **	1992
Fisk University	2010	University of Arizona	1972
Georgia State University	2008	University of California at Berkeley	2007
Harvard University *	1957	University of California at Santa Cruz *	1957
Indiana University *	1957	University of Chicago *	1957
Iowa State University	1992	University of Colorado	1977
Johns Hopkins University	1982	University of Florida	2002
Keck Northeast Astronomy Consortium	2018	University of Hawaii	1978
Leibniz-Institut für Sonnenphysik (KIS)**	2016	University of Illinois at Urbana-Champaign	1980
Massachusetts Institute of Technology	1981	University of Maryland	1986
Michigan State University	1997	University of Michigan *	1957
Montana State University	2005	University of Minnesota	1995
New Jersey Institute of Technology	2010	University of North Carolina at Chapel Hill	1995
New Mexico Institute of Mining and Technology	2018	University of Pittsburgh	2012
New Mexico State University	1999	University of Texas at Austin	1972
Ohio State University *	1957	University of Toledo	2016
Pennsylvania State University	1990	University of Virginia	2003
Pontificia Universidad Catolica de Chile **	1997	University of Washington	1986
Princeton University	1959	University of Wisconsin *	1957
Rutgers University	1999	Vanderbilt University	2010
Smithsonian Astrophysical Observatory	2017	Yale University	1958

*Original members

**International Affiliate members

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