

SPRING 2026

Reflections

Produced by the Mount Wilson Institute for the
Mount Wilson Observatory

Innovation on the Mountain: The Revolutionary 60-inch Telescope

by Tim Thompson

The very first telescope — a refractor — was invented by German-Dutch eyeglass maker Hans Lipperhey (or Lippershey) (1570-1619) in 1608. Both Thomas Harriot (1560-1621) and Galileo Galilei (1564-1642) immediately began telescopic astronomy with this new invention in 1609, Harriot actually coming a few months before Galileo. James Gregory (1638-1675) designed the first reflecting telescope with what we now call Gregorian optics in 1663, but never actually made one. Isaac Newton (1643-1727) invented Newtonian optics and made the first reflecting telescope in 1668. For the next 200 years or so, refracting telescopes outperformed reflectors and dominated astronomy.

But as the 20th century dawned, that changed dramatically when the 60-inch telescope was established at Mount Wilson Observatory. In my previous article, I described how the problem of transporting the 60-inch up Mount Wilson had prompted the invention of new technology for the electric truck industry. In this article I will describe how the new technology of the 60-inch itself revolutionized astronomical science.

Before George Ellery Hale (1868-1938) founded Wilson Observatory in 1904, he had been one of the founders of Yerkes Observatory for the brand new University of Chicago in 1892. The new 1-meter aperture refractor planned for Yerkes would be the highest quality telescope in the world, and ultimately the largest equatorially mounted refracting telescope ever built. It saw first light on 21 February 1897.

But even in 1892, Hale knew he needed a reflecting telescope and that a 1-meter aperture

was too small. The glass disk that would eventually become the primary mirror for the 60-inch was ordered from the Saint Gobain Glassworks in France in 1894. It was a birthday present to George from his father, William Ellery Hale (1836-1898). It was delivered to Yerkes in 1896. So for years before George could lay claim to the very best telescope in the world, he was already unsatisfied, and on his way to bigger & better telescopes.

Enter George Willis Ritchey (1864-1945). A furniture maker by trade, with additional education and aspiration for astronomy, he was hired onto the Yerkes staff by Hale in 1896. The 60-inch telescope at Mount Wilson Observatory is the brainchild of Ritchey. He designed it and oversaw its construction, both at the Union Iron Works in San Francisco and at the observatory workshop in Pasadena.

When the 60-inch (1.5 meters) saw first light on 13 December 1908 it surpassed the famous 1-meter refractor at Yerkes as well as the 48-inch aperture Great Melbourne Telescope in Australia, a speculum mirror reflector (which was used only intermittently after 1892).

Its 60-inch, f/5 primary mirror measured 7 $\frac{5}{8}$ inches thick at the edge, 6 $\frac{7}{8}$ inches thick in the center, and weighed in at 1900 pounds. It was not just the largest telescope mirror ever made, it was the largest single piece of glass ever made by anyone, for any reason. It was a marvel of glass making technology, not just astronomy. Large glass mirrors had

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**THE 2026 SEASON IS
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been made before, but their surfaces were not polished with the attention to detail lavished on this mirror by Ritchey. His big innovation in crafting this mirror was patience. Everyone before Ritchey had simply been in too big of a hurry. With about two years of concentrated effort, including the need to restart after an accident that scratched the glass, the 60-inch mirror was polished to a diffraction limited state, unprecedented for a large mirror.

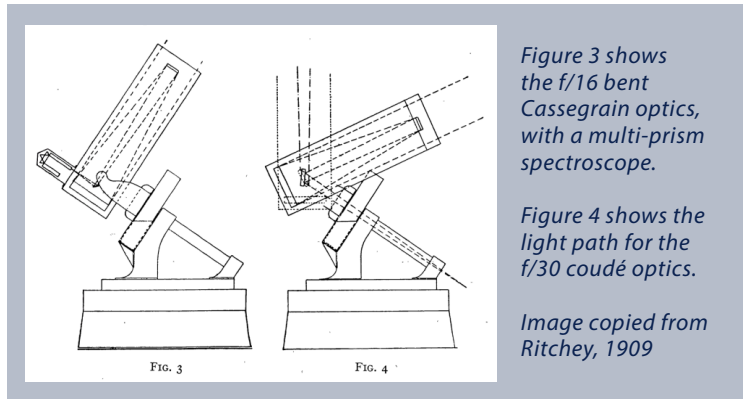
The mirror support — a “floatation” system in Ritchey’s words — was also his invention, incorporating innovations to ensure that the mirror did not shift or tilt when the pointing direction of the telescope changed. And he designed a collection of weights on the back to make sure stresses did not alter the mirror figure itself. Ritchey explicitly pointed out the problems involved with making full thickness mirrors, and argued that his system made it practical to make a thinner mirror, which would weigh less, and cost less. See his paper for a full description of his mirror floatation system [1].

The 48-inch mirror for the Great Melbourne Telescope was a 2,746 pound disk of polished speculum metal (a mix of copper & tin). But speculum has a low reflectivity, and once the process for silver coating glass had been invented during the 1850s, speculum began to go out of favor compared to glass, which was lighter and easier to handle. So the silver coated 60-inch mirror, polished to its diffraction limit, vastly outperformed both of its two rivals, and every earlier telescope.

The optical configurations for the 60-inch are illustrated in figures 1-4, which are copied from Ritchey’s 1909 paper [2] in which he describes the telescope with exquisite detail.

In another ingenious innovation, Ritchey hit on the idea of constructing the optical tube assembly with a removable, interchangeable upper section, called a cage, where the secondary mirror would be mounted. Suddenly one telescope becomes 3 or 4 different kinds of telescope just by swapping out the secondary cage, which experienced technicians could do in under an hour, somewhat like having a camera with interchangeable lenses. Figure 1 shows the f/5 Newtonian configuration, figure 2 shows the f/16 bent Cassegrain with

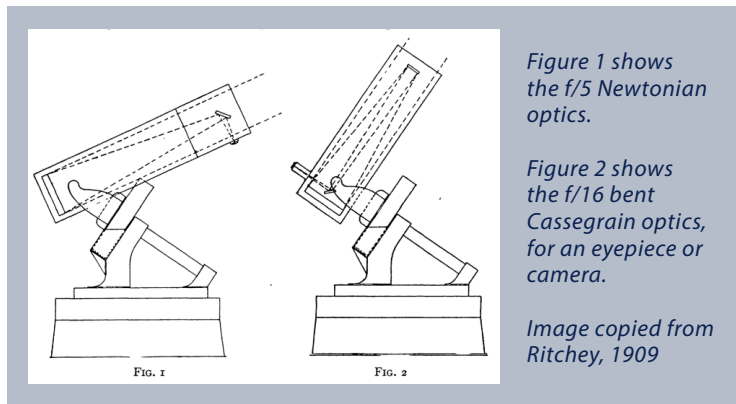
an eyepiece or camera, figure 3 shows the bent Cassegrain with a multi-prism spectroscope, and figure 4 shows the f/30 coudé light path. A prime focus cage was also made, but never used, as far as I know. Previous reflecting telescopes had to be rebuilt from scratch to change the optical configuration. So, this innovative design made the 60-inch highly versatile. It was the first telescope to actually be several different telescopes, in one neat package.



Beyond the ability to support multiple optical configurations in one single telescope, another new idea was the very long focal ratio, f/30, coudé light path. Coudé generally translates into English adjectives “elbowed”, or “bent”, but can mean “elbow” as a noun. The idea comes from French astronomer Maurice Loewy (1833-1907). Over the period 1887-1893, he built seven inverted T-shaped, equatorial coudé telescopes in Europe and Algiers, with 40-cm (16-inch) apertures, and 9-meter focal lengths (f/22). They were bent refractors, with light carried to the objective lens by mirrors, and the polar axis of the mount being made into a refracting telescope. His idea was ergonomic. He wanted a spot for the observer to remain fixed, rather than moving with the telescope.

Ritchey adapted the coudé idea for the 60-inch, providing a very large focal ratio light path specifically for spectroscopy. Figure 3 shows the light path for a multi-prism spectroscope attached to the bent Cassegrain position. But there are clearly size and weight restrictions for anything attached directly onto the telescope, limiting the spectral resolution at the f/16 Cassegrain focal ratio. The much longer f/30 coudé light path significantly magnifies the spectrum, and since it focuses at a point fixed onto the ground, a spectroscope of much greater size and weight than the telescope can support can be placed in the coudé room. It’s basically Loewy’s idea, but built backwards. This was the revolutionary design objective of both the 60- and 100-inch telescopes: to make observations that are fundamental to astrophysics. And that especially means spectroscopy.

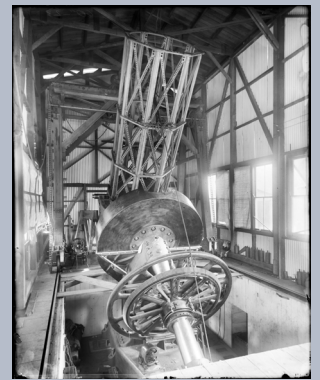
Ritchey was very aware of the Great Melbourne Telescope. He knew that one of its faults was a mount insufficient to handle the moving weight of the telescope, and he was determined



to avoid that problem with the 60-inch. The mount sits on a cast iron base that measures 15 feet long, 7 feet wide, and 18 ½ inches deep, weighing in at 14,000 pounds. The north and south columns, sitting on the base, weigh in at 9,500 pounds, and 2,000 pounds, respectively. The polar axis, supported by the columns, weighs in at 9,200 pounds. The hollow steel float, bolted to the polar axis, is 10 feet across, 2 feet deep, and weighs 8,600 pounds. The float sits in a cast iron trough that holds 650 pounds (5¾ gallons) of mercury, which fills a ⅛ inch gap between the float and the trough. The idea of floating in mercury was first tried by English amateur astronomer Andrew Common (1841-1903) about 1876, and is originally a technology used to float lighthouses. But Ritchey perfected the technique so that about 95% of the 22 ½ ton moving weight

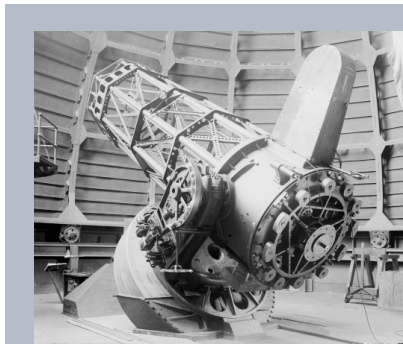
part of its legacy. The really big modern telescopes now have Gregorian optics rather than the classical optics of the 60-inch. But it was the 60-inch that demonstrated the viability and superiority of big reflectors. The transition to reflectors not only led to far larger apertures, but also to infrared and ultraviolet astronomy by taking advantage of wavelengths of light that cannot pass through a glass lens.

Now that we have looked at trucks and telescopes, in my next article I will review the scientific accomplishments made possible by the 60-inch telescope.



This photo, dated 27 November 1907, shows the optical tube assembly, and the polar axis assembly, combined, in the observatory workshop in Pasadena.

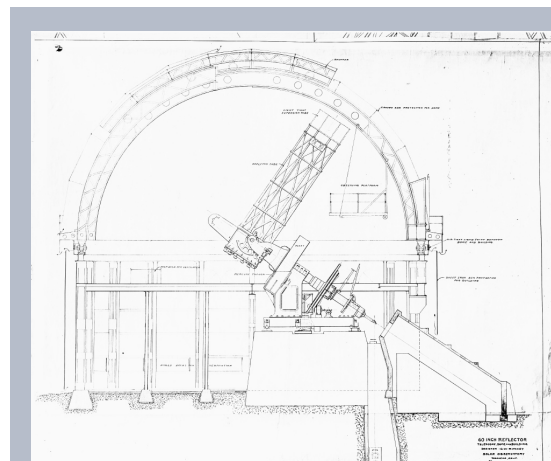
Photo from the Carnegie collection at the Huntington Library in San Marino



This photo, dated circa 1910, shows the 60-inch telescope in its early days. The float is clearly visible in the open tub of mercury, and the declination drive is exposed. The mirror floatation system is also clearly visible, and a sealed multi-prism spectroscope is attached to the bent Cassegrain position.

of the telescope was supported by buoyancy, leaving only about 1 ton for the mechanical bearing to support. Ritchey had overcome the problems evident in its immediate predecessor, the Great Melbourne Telescope.

The 60-inch is an overlooked landmark event in the history of astronomy and every large telescope made after 1908 is

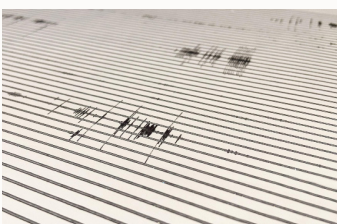


60-inch reflector telescope, dome and building blueprint.

From the Carnegie collection at the Huntington Library in San Marino

[1] *A Support System for Large Specula*
G.W. Ritchey, *Astrophysical Journal*, vol. 5, pp 143-147, February 1897

[2] *The 60-inch Reflector of the Mount Wilson Solar Observatory*
G.W. Ritchey, *Astrophysical Journal*, vol. 29, pp 198-210, April 1909



100 Years of Monitoring Earthquakes: Seismic Data Collection at Mount Wilson

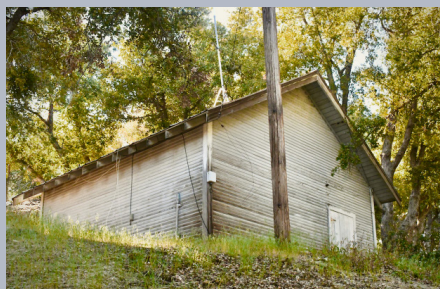
By Irene Nester, PG

Mount Wilson Observatory was not only at the forefront of astronomy and astrophysics in the early 20th Century, but also made significant contributions to early seismology research in Southern California. Seismology is the study of ground motion (seismic waves) generated by earthquakes or other sources. Seismometers and seismographs in seismic stations measure the properties of these waves. Networks of widely-spaced stations collect data needed to calculate earthquake magnitude and epicenter location. One of the first seismic stations in the Southern California Seismic Network (SCSN) is located within the Observatory grounds, and is still operating today.

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From Page 3 - 100 Years of Monitoring Earthquakes

The Mount Wilson seismic station (Station MWC) was established in the mid-1920s to investigate whether the increased elevation would cause variations in seismic data recordings compared to locations in Pasadena, as suggested by Mount Wilson astronomer John A. Anderson. He also



The 1926 wooden building now houses the modern SCSN seismic station's equipment.

contributed to the development of the Wood-Anderson torsion seismometer, the first seismometer installed at the station. The seismic station's sturdy wooden building was constructed in 1926. Routine operation began in April 1928 following initial testing of the seismic equipment in late 1927. The station was managed and operated by Observatory personnel for several decades afterwards.

The station building still houses a historic Benioff vertical seismograph that was installed in the 1930's and operated for over two decades. This vastly improved type of seismograph was developed by Hugo Benioff, who also had a connection to Mount Wilson. In the early 1920s he worked at the Observatory as an assistant solar astronomer during the summers while an undergraduate in astronomy. The famous Benioff seismographs were installed in seismic stations all over the world due to their sensitivity, simplicity and reliability, leading to many important advances in earthquake science. The station now uses more modern equipment, and is currently managed and operated by Caltech/USGS. The Mount Wilson station is one of the oldest seismic stations still operating and an important data contributor to the SCSN, which consists of over 300 active seismic stations.

This year marks the 100th anniversary of one of the many historic and ongoing contributions of Mount Wilson Observatory to our scientific knowledge of the universe and planet Earth. For more information about seismology at Mount Wilson, please see the September 2019 Reflections newsletter.



A recent photo of the historic Benioff seismograph, which is still inside the station building.



A Working Observatory

During a September 2025 visit, four Norwegian amateur astronomers go behind the scenes and under the domes at Mount Wilson.

by Tore Engen

Mount Wilson is about an hour from Los Angeles. It does not sound like much, but the change is dramatic. You leave the traffic and noise of LA behind, and you arrive on a quiet mountain with the white domes and solar towers among the trees. It feels magical: walking on historic ground, in real silence, with the sprawling LA basin far below.

We were four amateur astronomers from Norway, visiting with a clear purpose: an engineering tour to experience the inner workings of the observatory, and two nights of visual observing through Mount Wilson's great reflectors: the 60-inch and the legendary 100-inch Hooker Telescope.

Simply put, the engineering tour was excellent. We visited the Snow Solar Telescope, the workshop—filled with lathes, tools, and the clear sense that things are still built and repaired here—the machine room with its generators and infrastructure, and finally the 60-inch and 100-inch domes. It was fascinating to see how many smart, mechanical solutions were designed in the early 1900s, and how well they still work. The tour also made a strong impression because of the people: dedicated volunteers and staff who have upgraded systems, keep the

A Message from the Chairman, Sam Hale

Hello Mount Wilson friends,

Summer is around the corner, and I'm pleased that we're introducing the new 2026 Events Season for Mount Wilson in our Spring Reflections! Concerts in the Dome, Auditorium Talks that progress to viewing through the largest public telescopes in the world, Matinees on the Mountain which give families a fun chance to explore classic sci-fi and vintage films – all these wonderful experiences await fans of the Observatory in a couple of months.

But first, a quick look back at our successful 2025 Year End campaign. You gave generously to Mount Wilson, and we're so grateful -- your individual gifts literally create the backbone of Observatory funding! We exceeded our financial goal, especially in the membership area, where we saw member numbers in higher-level categories increase dramatically this year! We welcome all of you to our Mount Wilson community. Your commitment to our growth is keenly important and appreciated.

We're also grateful for recent grants from the Rivers and Mountains Conservancy and the Perenchio Foundation which will improve the grounds of our historic treasure. Institutional support like this is so important to our long-term sustainability and enables us to grow our visitor base and serve many generations yet to come.

There are a couple of centennial achievements this year I'd like to note: our Seismograph – one of the three oldest in Pasadena still recording local earthquake magnitude—turns 100 in 2026. These early measuring devices enabled Charles Richter to develop the Richter scale. And the confirmation of the speed of light – a multi-year experiment overseen by Albert Michelson, the first American to win a Nobel Prize in a science in 1907 – took place at Mount Wilson in 1926. An updated Velocity of Light exhibit is in development.

Although I never knew my grandfather and the founder of Mount Wilson, George Ellery Hale, I feel his presence on the mountain every time I'm there. He was a visionary, both in the field of Astrophysics and for the city of Pasadena at the turn of the 20th century. Over time we've been able to turn our "Temple of Science" into a public space, where you and your families can experience a 120-year-old working observatory, and the magic and mystery of the night skies. We look forward to sharing it with you again this summer.

All the very best,
Sam Hale



observatory running, and clearly care about every detail. It is clear that the observatory is not just preserved, it is maintained.

Observing with the 100-inch telescope is an unforgettable experience. Sitting there in the dark, you can't avoid the thought that this is the telescope that was used by many of the greatest astronomers of the 20th century. It helped turn "nebulae" into galaxies and was used by Hubble and Humason to uncover the expansion of the Universe. It is not a dramatic feeling—more of a quiet awareness that sinks in.

Observing with the 60-inch telescope gives you the same feeling. Even though the mirror is 40 inches smaller in diameter, the experience is still "big telescope" in every sense. For amateurs used to lenses and mirrors in the 3–18-inch range, observing with a 60-inch and a 100-inch telescope is beyond words and creates memories for a lifetime.

For targets, we used our own observing lists on both nights. In the 100-inch, Jupiter was the first object, low in the west, big in the eyepiece, with detail and changing structures in the atmosphere as the seeing came and went. The Cat's Eye Nebula (NGC 6543) was a highlight: bright, with a strong central star and layered shells clearly visible in the 100-inch. The Saturn Nebula (NGC 7009) had that unmistakable shape, and in the 100-inch it looked three-dimensional, with the central region shining strongly. On the 60-inch we also included Campbell's Star. You do not see much colour in astronomical objects, but this one really stands out—deep red, almost unreal.

Time flies when you're having fun. We left with the clear impression that Mount Wilson is special not only because of its history, but because it is so well cared for today. Much of the credit belongs to the dedicated volunteers and staff who devote their time and effort to keeping it that way.

The Mount Wilson Institute operates Mount Wilson Observatory on behalf of the Carnegie Institution for Science. Mount Wilson Institute is dedicated to preserving the Observatory for scientific research and fostering public appreciation of the historic cultural heritage of the Observatory. *Reflections* is published periodically by the Mount Wilson Institute.

INFORMATION

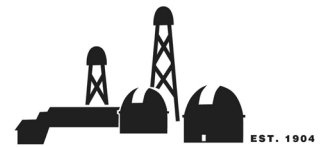
For information about the Observatory, including status, activities, tours, and reserving 60-inch and 100-inch telescope time, visit our website: www.mtwilson.edu

For the use of historical photographs of Mount Wilson, we thank the Observatories of the Carnegie Institution for Science, the Huntington Library, and other sources as noted. *Reflections* copyright © 2025, Mount Wilson Institute.

Cover Banner: The Orion Nebula, photographed by George W. Ritchey at Mount Wilson Observatory — Plate O, December 24, 1908. Courtesy of the Carnegie Observatories Archives.

Special thank you to Michelle Yan, whose volunteer work helped bring this newsletter together.

NEWS & NOTES



Echoes of Discovery: A Piano Premiere & Fundraiser in the 100-Inch Dome

This spring, Mount Wilson welcomed guests beneath the 100-inch telescope for Echoes of Discovery, marking the debut of a beautifully restored 1907 Steinway. Generously donated by Dr. James Vail — who joined us for the afternoon — the piano shares its year with the casting of the 100-inch mirror blank, creating a meaningful connection between the Observatory's past and present. Pianist Tim Durkovic, joined by Ambroise Aubrun (violin) and Cécilia Tsan (cello), filled the dome with music by Beach, Fauré, Mozart, and Brahms. Despite the chilly temperatures on the mountain and inside the dome, it was a warm and memorable gathering. Proceeds support the piano's ongoing care and Mount Wilson's growing music program.

Expanding Our Reach: STEM on the Rise

Mount Wilson Institute's STEM program is experiencing its busiest spring yet, with more school groups scheduled than ever before — including several new partner schools joining us for the first time. Students travel to the mountain for hands-on, NGSS-aligned experiences that connect classroom learning to real scientific history and discovery, from studying light and spectroscopy to exploring solar science and the story of the 100-inch telescope. Our outreach efforts have expanded significantly this year, with a growing number of reservations from Title I schools, helping ensure that students from historically underserved communities have meaningful access to the highest-quality science education and the opportunity to learn right where groundbreaking discoveries were made that set the course of modern cosmology. By the end of the school year, we expect to serve over 680 students, bringing authentic, hands-on astronomy education to young learners in the very place where some of the most important discoveries in modern science were made. You can learn more about our STEM program at www.mtwilson.edu/stem.

Now Booking: Private Telescope Nights

Reservations are now open for private group observing with the historic 60-inch and 100-inch telescopes. Experiencing these legendary instruments — where discoveries reshaped humanity's understanding of the universe — is unlike any other form of stargazing. Dates fill quickly, so we encourage reserving early to secure your preferred date. Weekend nights go especially fast — perhaps consider a weeknight. Details and booking information are available at www.mtwilson.edu/observe.



New Wayfinding & Interpretive Signage Installed Across the Grounds

After two years of planning and design, Mount Wilson Observatory has completed the installation of new wayfinding and interpretive signage throughout the campus. Thoughtfully designed by Pasadena-based NONdesigns, the updated system improves navigation while enriching the visitor experience with historical and scientific context at key locations across the mountain. From clearer directional markers to thoughtfully designed panels highlighting telescopes, research sites, and landmark discoveries, the new signage helps guests better understand where they are — and why it matters — representing an important investment in accessibility, stewardship, and the long-term care of our historic grounds.

Powered by Generosity

This past year marked a major step forward for Mount Wilson Observatory, made possible by generous philanthropic and public support. A \$2.115 million grant from the Rivers and Mountains Conservancy will fund critical wildfire-mitigation and access improvements over the next two years. A \$330,000 grant from the Perenchio Foundation supports construction of permanent restrooms between the historic 60-inch and 100-inch telescopes, while a \$100,000 grant from the Kenneth and Eileen Norris Foundation advances new STEM curricula. Recent renovations to the Monastery were completed with a \$150,000 grant from the Ahmanson Foundation. Together, these gifts reflect the confidence of our partners and donors in Mount Wilson's mission—and their vital role in sustaining this extraordinary place.

Volunteer Community Kicks Off 2026

Mount Wilson's volunteer community gathered this spring to launch the 2026 season, celebrating another year of public programs, collaboration, and mountain stewardship. We were especially pleased to recognize our Volunteers of the Year, Van Webster and Iraneide de Oliveira, for their outstanding dedication and service. Event volunteers play a vital part at the Observatory — by showing great hospitality to guests and keeping the events running smoothly, they ensure that visitors have a memorable Observatory experience. As the season begins, we invite new volunteers to join this remarkable team. Learn more at www.mtwilson.edu/volunteer.



Winter Work: Expanding Connectivity

While public programs paused for the season, Mount Wilson's Tech Services team was hard at work expanding outdoor Wi-Fi coverage across the campus. Newly installed access points now power enhanced wayfinding signage, allowing guests to scan QR codes for instant access to deeper stories about the Observatory's history, science, and telescopes. Staff and volunteers will also benefit from improved on-campus communication, with stronger support for email, text, and voice — making day-to-day operations on the mountain more efficient and connected than ever.

SEASON SCHEDULE 2026



OBSERVING

Private Group Telescope Reservations

Private telescope reservations are now open. Book the 60- or 100-inch telescopes for a half or full night.

Public Ticket Nights

Offering tickets to individuals rather than groups, our PTN dates are released over the course of the season. Check our website or watch your inbox for notices of available dates.

LAAS Star Parties

Join us for a public star party and spend a relaxing evening under the stars looking through telescopes provided by the members of the Los Angeles Astronomical Society!

CONCERTS

MAY

24

PIANO AND STRINGS

Zachary Deak, piano, Tosca Opdam and Asi Matathias, violins, Carson Rick, viola, Cécilia Tsan, cello
Mendelssohn Trio in D minor, Fauré Piano Quartet No. 1 in C minor

JUN

7

ROGUE LEMON COLLECTIVE

Eleanor Dunbar & Megan Shun, violins, Rita Andrade, viola, Zach Reaves, cello, Karl McComas-Reichl, bass
"High Ground, New Sound"

JUL

05

BRASS QUINTET

Dan Rosenboom & Rob Shear, trumpets, Laura Brenes, horn, Alex Iles, trombone, Doug Tornquist, tuba
Bernstein "Suite from West Side Story" and more...

AUG

09

JAZZ

Tom Ranier, piano, Larry Koonse, guitar, Darek Oles, bass
Carte Blanche to Tom Ranier

SEP

06

WEBERN STRING QUARTET

Benjamin Hoffman & Chiai Tajima, violins, Alex Granger, viola, Stella Cho, cello
Todd Mason String Quartet No.5 "The Phoenix" (2025), Beethoven String Quartet No.15, Op.132

OCT

04

PIANO QUARTETS

David Kaplan, piano, Ambroise Aubrun, violin, Ariana Solotoff, viola, Cécilia Tsan, cello
Mahler, Brahms Op.60 in C minor

MATINEES ON THE MOUNTAIN

MAY

09

WALL-E (2008)

A lonely trash-compacting robot on a deserted Earth discovers love and helps spark humanity's return to the planet.

JUN

13

Our Heavenly Bodies (1925)

with Live Score
Part scientific documentary, part science fiction, this 1925 silent film blends early special effects with astronomical theory to visualize the entire known universe.

JUL

18

The Right Stuff (1983)

During the early days of the U.S. space program, test pilots and the Mercury Seven astronauts push the limits of human endurance and courage in the race to reach space.

AUG

15

E.T. the Extra-Terrestrial (1982)

(with special guests, the Bob Baker Marionettes)
A boy befriends a stranded alien, and together they embark on an adventure to help E.T. phone home before the grown-ups catch him.

SEP

12

Solaris (1972)

A psychologist travels to a troubled space station orbiting the planet Solaris, where a mysterious alien intelligence manifests human memories and forces the crew to confront their past.

OCT

10

Invasion of the Body Snatchers (1956)

A small-town doctor discovers that people in his community are being secretly replaced by emotionless alien duplicates grown from mysterious pods.

TOURS

Weekend Tour

Offered Saturday and Sunday at both 11:30 AM and 1 PM, leaving from the Cosmic Café. Tours include access to the 100-inch, the 60-inch, 150-ft solar, and Snow solar telescopes. Weekend Tours will begin Saturday, April 11.

Private Group Tours

Perfect for groups, our daytime private tours provide great flexibility as the days and times are arranged with our docent.

Engineering Tours

These behind-the-scenes tours of the 60- and 100-inch, Snow solar telescope, and the Powerhouse/Machine Shop concentrate on the mechanical, optical, and electrical details of these amazing historic instruments. Dates and tickets are available through our website.

TALKS & TELESCOPES

MAY

16

MICHAEL BLANTON, Carnegie Observatories Director and Crawford M. Greenewalt Chair

The Past and Future of the Sloan Digital Sky Survey

JUN

20

GABRIEL VAJENTE, Deputy Head of System Science and Engineering, LIGO Laboratory at Caltech

Gravitational Waves: Ten Years of Exploring the Dark Side of the Universe

JUL

25

CLIFFORD V. JOHNSON, Professor of Physics, University of California, Santa Barbara

Graphic Talk About Science: Adventures in Science Engagement

AUG

22

LITA ALBUQUERQUE, Artist

Towards a Functional Cosmology

SEP

19

ANNA VON MERTENS, Visual Artist and Author

The Brightness of Stars: Henrietta Leavitt and the Transformative Nature of Attention in Art and Science

OCT

17

SAM HALE, CEO and Chairman of the Board of the Mount Wilson Institute

The Duality of Genius and Struggle: G. E. Hale

TICKETS AT
WWW.MTWILSON.EDU/EVENTS



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Become a member of Mount Wilson Observatory today. Enjoy member benefits while supporting this astronomical treasure. Visit our website for full details at: www.mtwilson.edu/membership

HOW TO GET TO MOUNT WILSON OBSERVATORY

From the 210 freeway, follow Angeles Crest Highway (State Highway 2 north) from La Cañada Flintridge to the Mount Wilson-Red Box Road; turn right, go 5 miles to the Observatory gate marked Skyline Park, and park in the lot below the Pavilion. To reach the Observatory, walk on the access road (far left side of parking lot) about 1/4 mile to the Observatory area.

WELCOME, VISITORS!

The Observatory is open from 10:00 a.m. to 5:00 p.m. daily, and until 4:00 p.m. in the off-season. The Cosmic Café at the Pavilion offers sandwiches and Observatory memorabilia on Saturdays and Sundays, but close for the winter in mid November.

SELF-GUIDED TOURS

When the grounds are open, you are welcome to walk around the outside public areas of the Observatory. Our website has print-outs for self-guided tours. The Observatory and the CHARA array both have small museums, and the 100-inch Telescope dome has a visitor's gallery to view the famous 100-inch Telescope.

PARKING AT THE OBSERVATORY

We are open almost every day of the year. The U.S. Forest Service requires those parking within the Angeles National Forest and the National Monument (including the Observatory) to display a National Forest Adventure Pass. Display of a National Parks Senior Pass or Golden Age Passport is also acceptable. Day passes can be purchased at the Cosmic Cafe. For information, visit www.fs.usda.gov/angeles/.

