

LAS CUMBRES GLOBAL OBSERVATORIES!



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Education & Outreach ▾

Science ▾

For Observers ▾



**Twenty-five telescopes at seven sites
around the world working together as a
single instrument >**

TOP HIGHLIGHT



NEWS

**The Star that Survived a
Supernova**

[Read More >](#)



Enabling World-Class Science

LCO's telescopes around the world, always ready in the dark, drive a unique and powerful engine supporting discoveries in Time Domain Astronomy.

Made available by a
Grant provided by Pat
& Grady Boyce
Foundation for STEM
education for children
around the world!

Proposal by Chandru Narayan

THE REMOTE ROBOTIC TELESCOPES OF THE LCO



Explore LCO



Education & Outreach



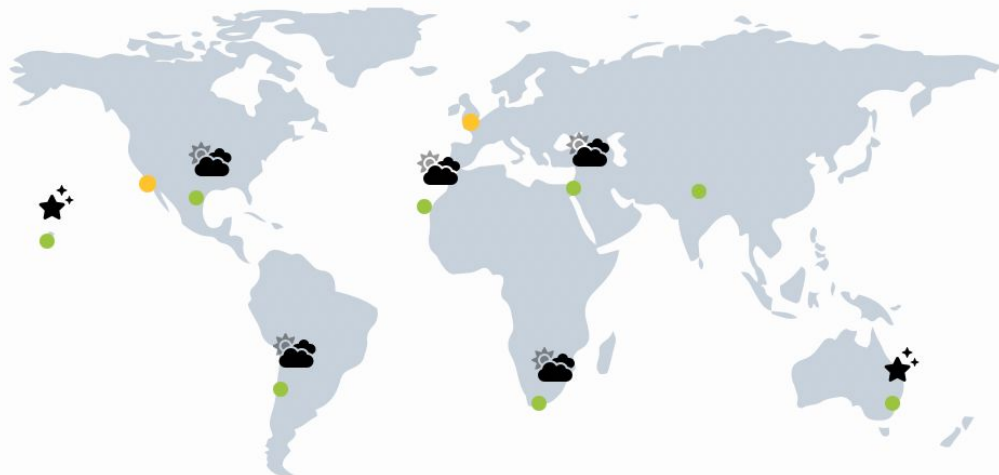
Science



For Observers



Observatory Sites



2-METER >

1-METER >

0.4-METER >

We will be using one or more of these 0.4 meter telescopes for scheduling our remote observations!

LET'S LOOK AT THE TELESCOPES



Where is this Telescope?

How big is it?

What kind of Telescope is this?

What else can you tell me about it?

Can we use it now?

PREPARE AN OBSERVATION REQUEST - DO NOT SUBMIT YET!!

≡KISK

Las Cumbres
Observatory LCO

Logged in as: cnarayan [log out]

Project: STEM Through Astronomy Research

- San Diego

[change]

Telescope Size: 0.5 meter

Suggestions

Catalog LookUp

Submit

Reset

Don't submit yet!

**Show it to Chandru first
before submitting!**

Click this first!

Multiple clicks will give you more choices

**Or this one if you know the
name of your favorite
target**


Past Observations

Target	Status	Actions
Moon coj	⊘	
jupiter	⊘	
jupiter	✓	Get Image
m57	✓	Get Image

Search your targets



Sombrero Galaxy

Coordinates:  12^h 39^m 59.4^s, -11° 37′ 23″

From Wikipedia, the free encyclopedia
(Redirected from [Sombrero galaxy](#))

For other uses, see [M104 \(disambiguation\)](#).

The **Sombrero Galaxy** (also known as **Messier Object 104**, **M104** or **NGC 4594**) is a **peculiar galaxy** of unclear **classification**^[5] in the **constellation** borders of **Virgo** and **Corvus**, being about 9.55 **megaparsecs** (31.1 million **light-years**)^[2] from our galaxy, within the **local supercluster**. It has a diameter of approximately 15 kiloparsecs (49,000 light-years),^[6] three-tenths the size of the **Milky Way**. It has a bright nucleus, an unusually large central bulge, and a prominent **dust lane** in its outer disk, which is viewed almost edge-on. The dark dust lane and the bulge give it the appearance of a **sombrero** hat. Astronomers initially thought the halo was small and light, indicative of a spiral galaxy; but the **Spitzer Space Telescope** found that the dust ring was larger and more massive than previously thought, indicative of a giant **elliptical galaxy**.^[7] The galaxy has an **apparent magnitude** of +8.0,^[6] making it easily visible with amateur telescopes, and is considered by some authors to be the galaxy with the highest **absolute magnitude** within a radius of 10 megaparsecs of the Milky Way.^[4] Its large bulge, central **supermassive black hole**, and dust lane all attract the attention of professional astronomers.

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References

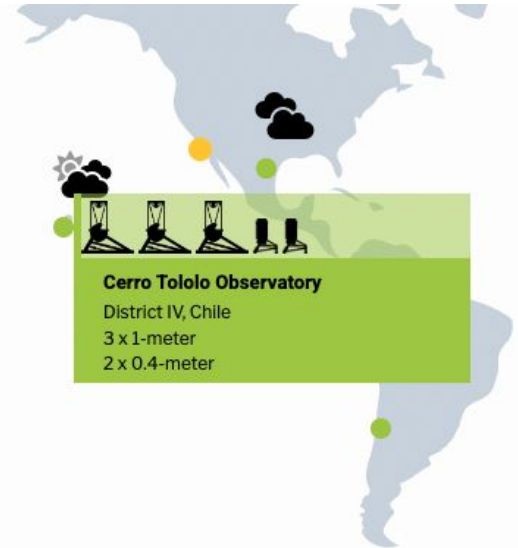
Sombrero Galaxy	
	
Image taken by Hubble Space Telescope , October 2, 2004	
Observation data (J2000 epoch)	
Constellation	Virgo
Right ascension	12 ^h 39 ^m 59.4 ^s ^[1]
Declination	−11° 37′ 23″ ^[1]
Redshift	0.003416 ± 0.000017 ^[1]
Helio radial velocity	1,024 ± 5 km/s ^[1]
Galactocentric velocity	904 ± 7 km/s ^[1]
Distance	9.55 ± 0.31 Mpc (31.1 ± 1.0 Mly) ^[2]
Apparent magnitude (V)	8.0 ^[3]
Absolute magnitude (B)	−21.8 ^[4]
Physical characteristics	
Mass	~10 ¹¹ M _☉ (s)a ^[1] or E ^[5]
Size	15 kpc (49,000 ly)

This should be less than 50 Mly
Otherwise the image will be too
small for the 0.4 meter
telescope!

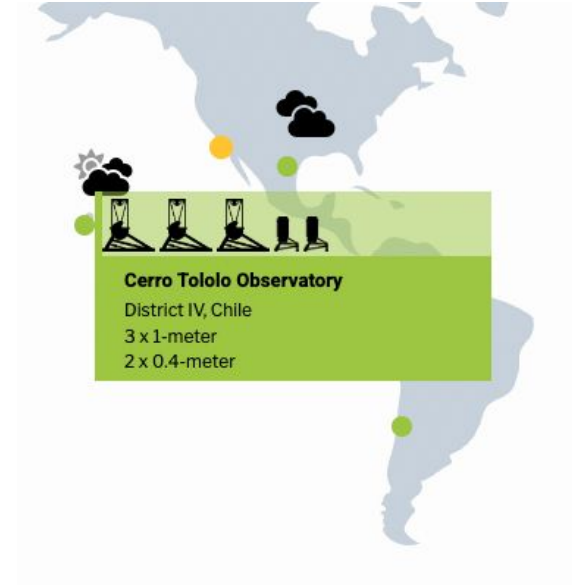
HERE IS AN
EXAMPLE
YOU MIGHT
CHOOSE!

MASSIVE SPIRAL GALAXY M101 - PINWHEEL GALAXY!

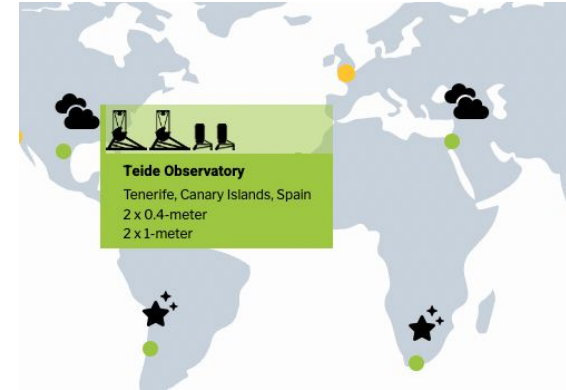
IT'S TWICE THE SIZE OF
THE MILKY WAY - HAS A
TRILLION STARS AND IS
21 MILLION LIGHT
YEARS AWAY!



ROBOTIC TELESCOPE IMAGES - ANDROMEDA GALAXY M31!



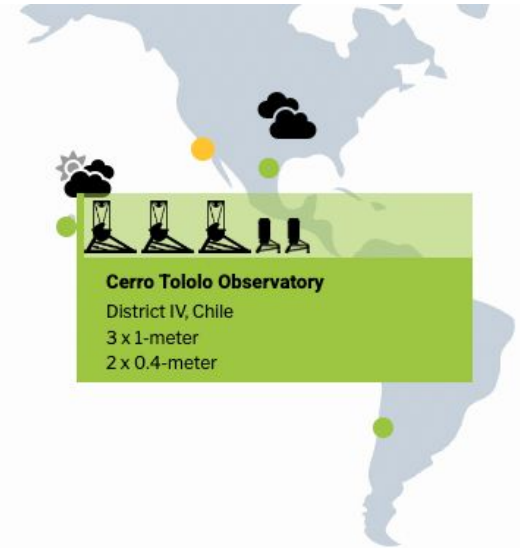
ROBOTIC TELESCOPE IMAGES - GLOBULAR CLUSTER M19!



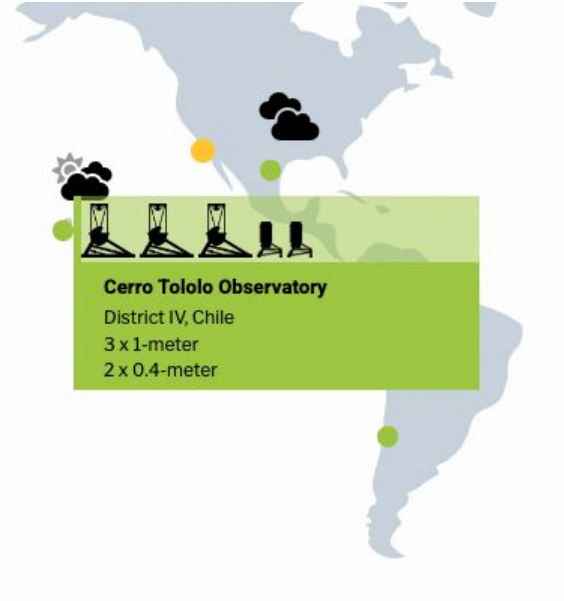
ROBOTIC TELESCOPE IMAGES - CRAB NEBULA M1!



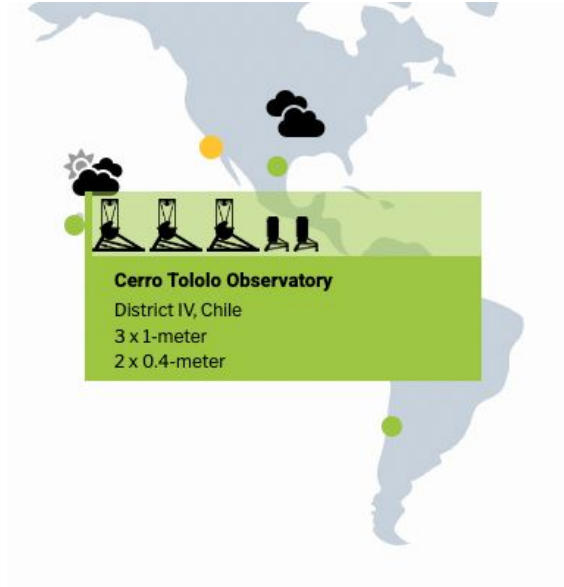
Remnants of a
Supernova
Explosion in
the Milky Way
Galaxy!



ROBOTIC TELESCOPE IMAGES - SOMBRERO GALAXY M 104!



ROBOTIC TELESCOPE IMAGES - SPIRAL GALAXY NGC 925!

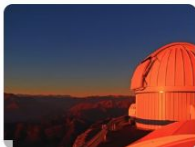


THE OBSERVATORIES WE GOT IMAGES FROM!

■ ■ ■ Cerro Tololo

Cerro Tololo Inter-American Observatory is home to many [NOAO](#) telescopes. Las Cumbres Observatory deployed a full node of three [1-meter](#) telescopes at Cerro Tololo during [October 2012](#). We also have two [0.4-meter](#) telescopes at this site.

For more information about the site, check out the [Cerro Tololo Inter-American Observatory](#) website.



■ ■ ■ Teide

Teide Observatory, on Tenerife, is home to several types of telescopes including solar, optical, and radio. In May, 2015, two LCO [40-cm telescopes](#) were installed here in an Aqawan enclosure. With a generous grant from the [Gordon and Betty Moore Foundation](#), two [1-meter telescopes](#) were installed in 2021.

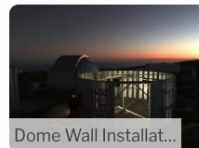
For more information about the site and the current telescopes, check out the [Observatorio del Teide](#) website.

News:

- [Two New Telescopes See First Light in Tenerife](#)
- [LCO Receives a Grant from the Moore Foundation to Build Two New Telescopes](#)



Observatory install...



Dome Wall Installat...



TFN Dome Install



A New 1m Telescope ...