

Las Cumbres Observatory Global Telescope Network: Keeping Education in the Dark

Rachel J. Ross

16 May 2009

Photo by: Rob Ratkowski, Maui

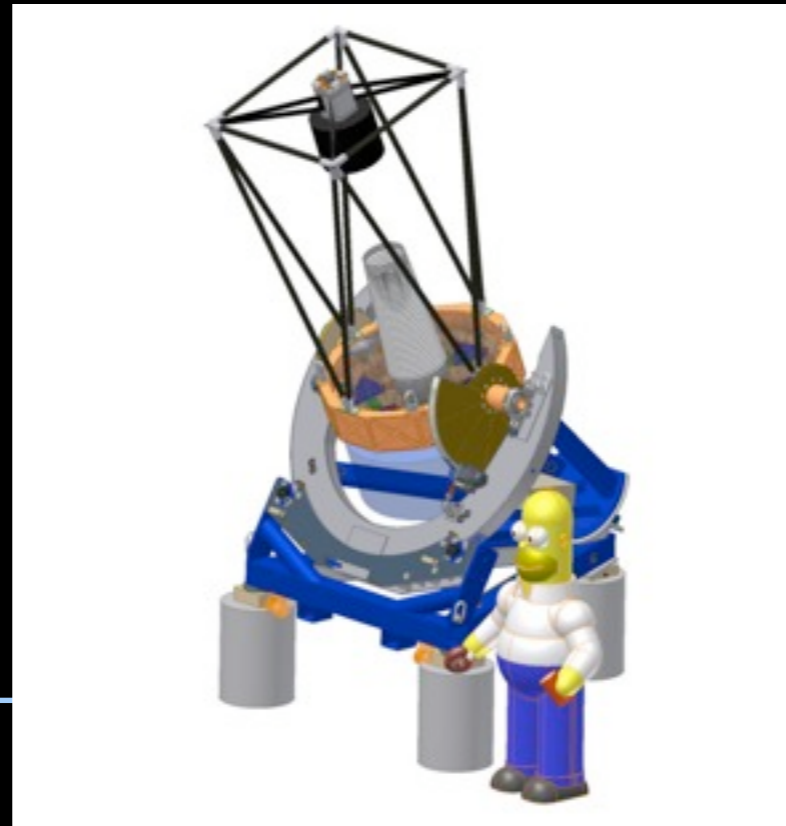
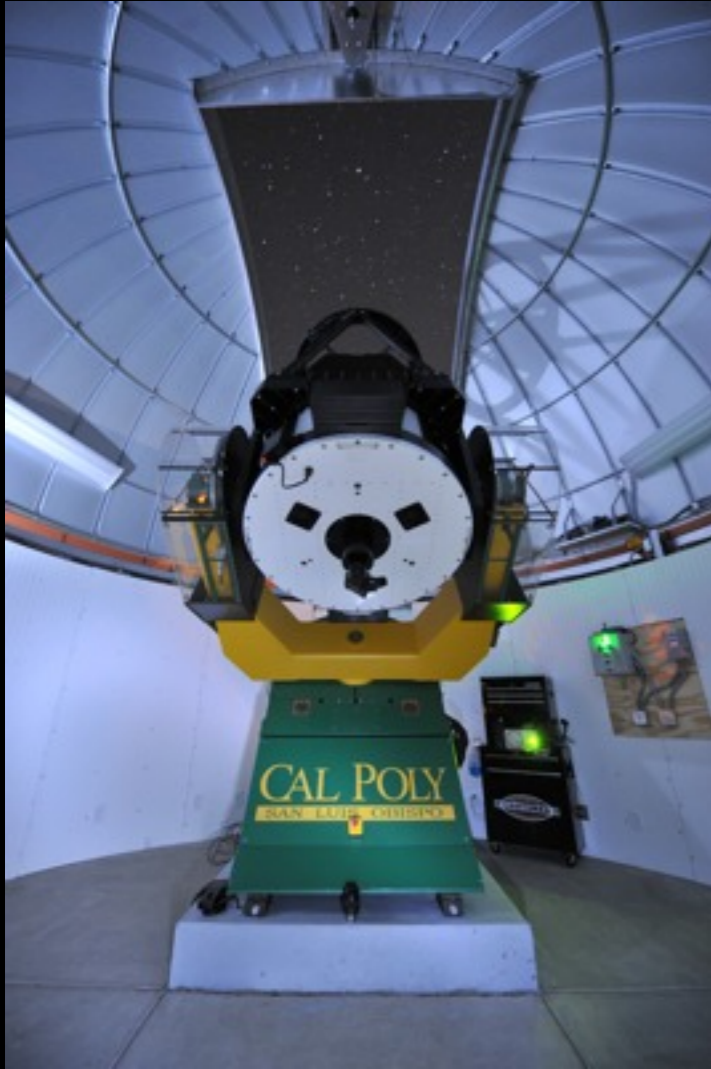
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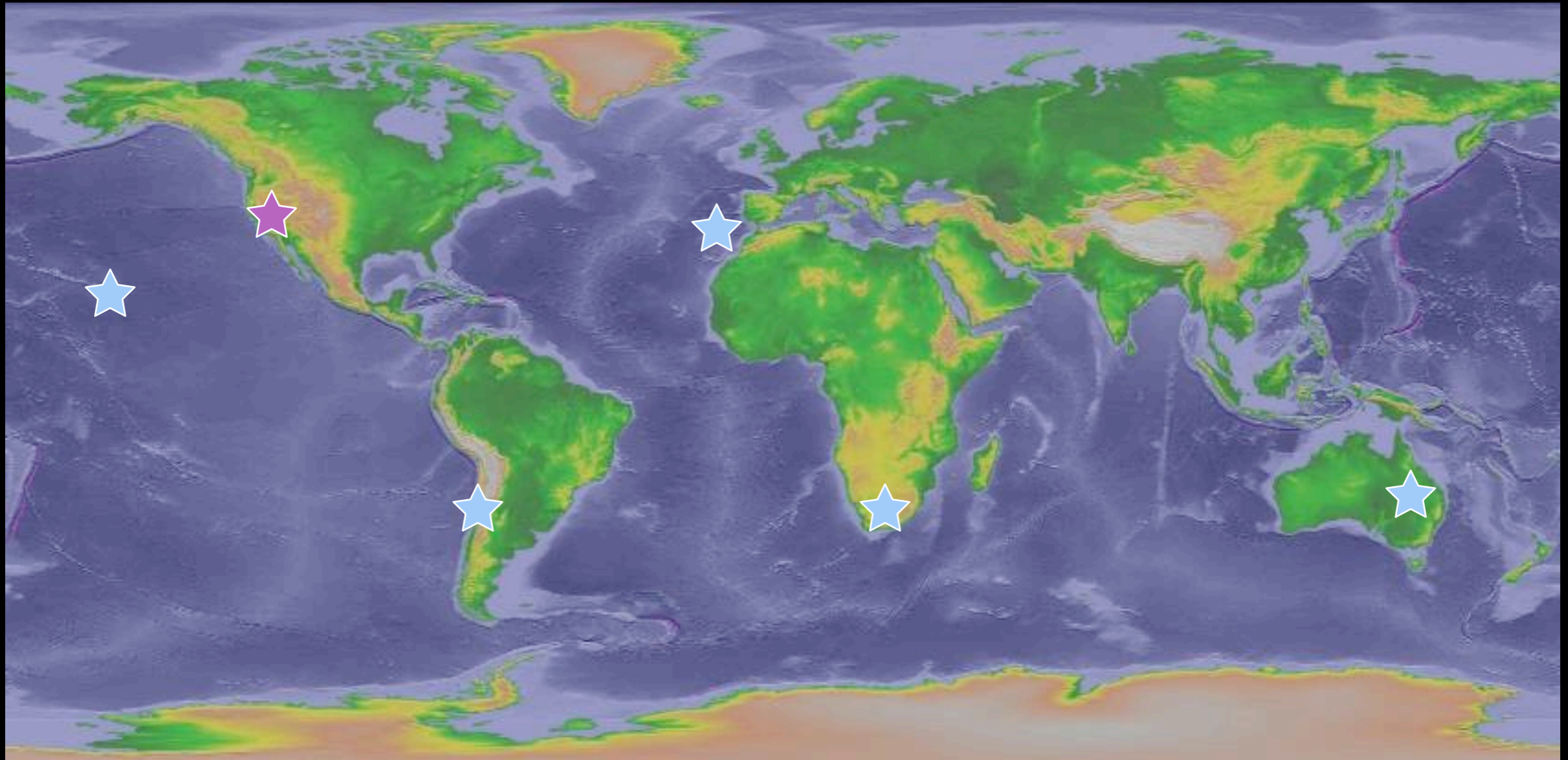
16 May 2009

Photo by: Rob Ratkowski, Maui

LCOGT Telescopes



The Global Telescope Network





Las Cumbres Observatory

Global Telescope Network

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About Us

Las Cumbres Observatory Global Telescope Network is a private operating foundation, building a global network of telescopes for scientific research and research-based education.

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Image gallery



NGC1365

Latest Network Observation

No
Image
Available



Latest LCOGT News

Sedgwick Telescope sees first light on site

24 April, 2009

first light



The Sedgwick telescope has now had first light at its site. The telescope is not robotically controllable yet and does not have a full set of instrumentation installed or commissioned on it. This trip was was to check and calibrate the optics on a dark sky, before commissioning can continue. [read more »](#)

- 21 Mar 2009 [Sedgwick Telescope sees first factory light](#)
- 19 Feb 2009 [Hawkcams to be Decommissioned](#)
- 28 Jan 2009 [How to keep a telescope dry](#)
- 16 Jan 2009 [0.4m Update](#)

[more news & blogs](#)

Latest Publications

The Core-collapse Rate from the Supernova Legacy Survey

Bazin et al. 2009, A&A, accepted, astro-ph: 0904.1066

[Read the preprint](#)

- 2 Apr 2009 [A systematic fitting scheme for caustic-crossing microlensing events](#)
- 1 Apr 2009 [e-EVN observations of Aql X-1 in outburst](#)
- 14 Mar 2009 [Optical and hard X-ray detections of an outburst from Aquila X-1](#)

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Telescope Network

Tools for people using the LCOGT telescope network.

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- [Book time and use the networked telescopes](#)

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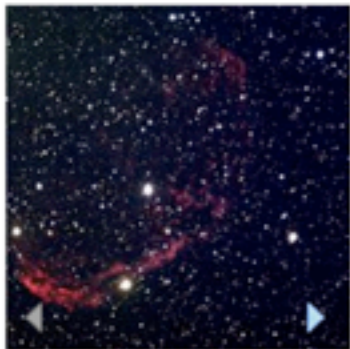


About Education

The aim of our education program is to get students and teachers participating in research-based science education and improving their motivation to push the barriers of science education further. [read more »](#)

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Gallery



NGC6888 with 0.4m

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Education & Public Outreach



Activities

Our astronomy activities, some involve observing, others use archive data.



How-to articles and guides

Our guides to planning observing sessions, making color images and using software



Image gallery

Galleries of astronomical images, telescopes, latest observations and images submitted by LCOGTERS.



Education team

The team who support our education program, writing education activities, How-to articles and blogs.

Featured Activities

Making Craters

Group: [Asteroid and Comet Observing](#)

[asteroids](#) [craters](#) [solar system](#)



23 October, 2008

During this activity you will be simulating the effect of a meteorite impact on the Earth. You can change the physical character of both the meteorite and type of ground that it hits and see what happens. The simulated results will be compared to existing Earth craters at various locations across the globe.

Create a Hubble Tuning Fork diagram

28 March, 2008

[galaxy](#) [redshift](#)



In this project you will use data taken with the LCOGT network, to produce colour images of galaxies of different types, and create your own Hubble tuning fork diagram.

[more activities](#)

Astronomical Data search

Search the public data archive from the LCOGT network.

[Data Archive](#)

[Book time and use the networked telescopes](#)

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16 Apr 2009
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26 Mar 2009
- » [Sedgwick Telescope sees first factory light](#)
21 Mar 2009

Articles

- » [What is a microlensing event?](#)
04 Mar 2009



Building blocks:

» [What is a microlensing event?](#)

External Link:

<http://www.artemis-uk.org>

Activity Summary

Observe high priority microlensing events with an easy to follow technique, and possibly help discover an exoplanet.

Objectives:

This observing programme will contribute to the observations made by professional astronomers of exoplanet candidates.

Activity time:

30-45 minutes

Observing time:

30 minutes

Archive Data:

Does not use archive data.

Planning:

You will need to check if the objects you have selected are visible at the time of your booking.

Images or documents



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Join our search for new planets

04 March, 2009

[exoplanets](#) [extrasolar planets](#) [microlensing](#) [observing](#)

Microlensing events are very rare because they rely on a chance alignment between a distant star and a closer star. Because of this we need to look at a part of the sky which has lots of stars to increase the chances of us catching these events. The highest concentration of stars in the sky is towards the bulge or centre of our Galaxy, the Milky Way. If the closer star has one or more planets, microlensing gives us a chance of detecting them (see [What is a microlensing event?](#) for more information).

The [OGLE](#) (Optical Gravitational Lensing Experiment) and [MOA](#) (Microlensing Observations in Astrophysics) teams regularly produce a list of the potential candidates for exoplanets. It is a trimmed down version of the target list that we will be using for observing these events.

At present you will only be able to follow this method if you have registered to use the 2m telescopes in the LCOGT network, via [Faulkes Telescope Project](#) or [Hawaii outreach program](#). The Faulkes Telescope Project are only able to register education users from the UK.

Preparing for observing

1. Book an observing session. It is possible to observe from either Faulkes Telescope North or South, but the visibility of the bulge is much better from [Faulkes Telescope South](#).
2. Check the [microlensing recommended target](#) page for objects to observe. The list is updated every 1-2 days, so it is best to check on the day of your session. It looks like the image below.

Target recommendation

New target list has arrived Wed Mar 4 15:05:09 UTC 2009

Finder chart orientation: East is up and North is to the right.

TARGET	Coordinates	Filter	t_{exp}	Finder chart	Lightcurve
OB-08-098	RA 18:06:59.33 Dec -29:23:39.2	SDSS-I	41.0 s		
OB-08-099	RA 18:09:37.65	SDSS-I	44.0 s		

Observing Exoplanets

About the author

★ [Edward Gomez](#)

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facebook

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Email Password Login

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Sign up for Facebook to connect with Las Cumbres Observatory Global Telescope Network.

LCOGT.net Las Cumbres Observatory Global Telescope Network

Wall Info Photos

Las Cumbres Observatory Global Telescope Network Just Fans

Information
Founded: 2005

Fans
6 of 48 fans See All

Photos
2 albums See All

Astronomy
Created about 4 months ago

Network
Created about 4 months ago

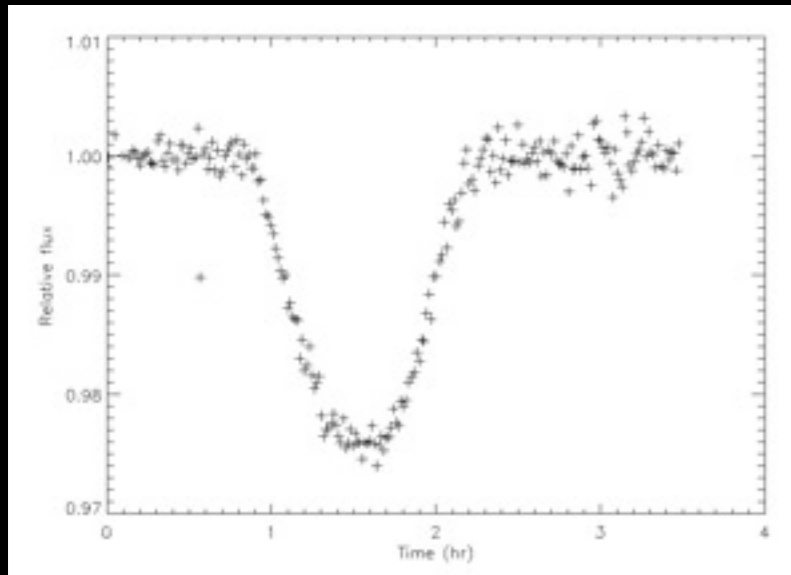
Las Cumbres Observatory Global Telescope Network

Astronomy
January 5 at 4:28am

Las Cumbres Observatory Global Telescope Network Images of the telescopes and observatories in our network.

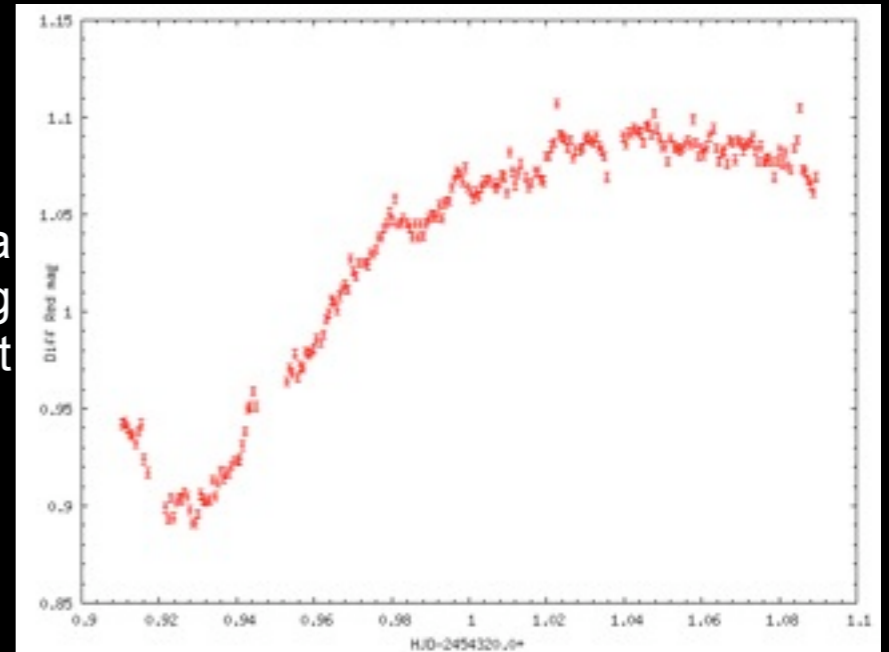
Network
4 new photos
January 5 at 4:22am

A Few Projects

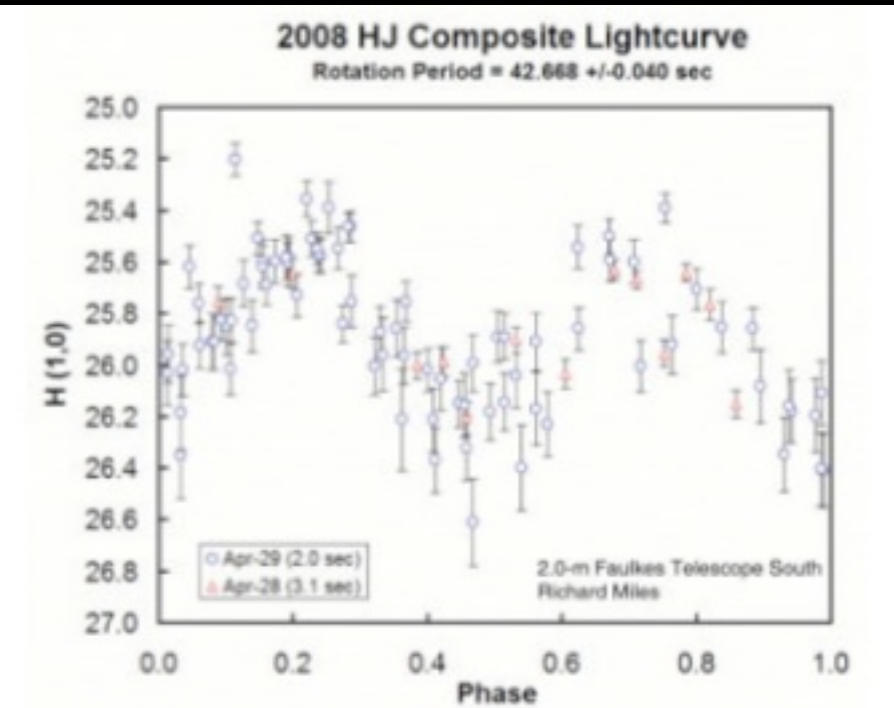


Extrasolar planet TrES-3 on FTN
Observed by Marton Hidas

Variable star V867Ara
Light curve using the Muhlenberg
on 2007/08/08 by Rachel Street

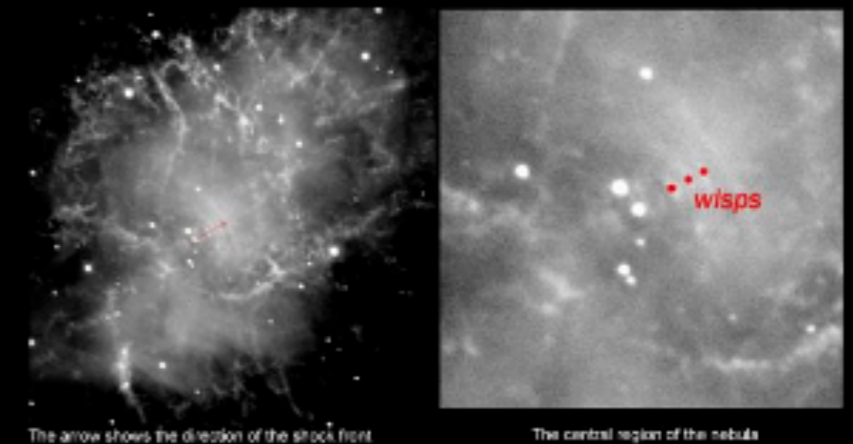


Asteroid 1998 BP26
Taken with FTN on
2007/02/13
By the Spaceguard Centre



Fastest rotating natural
object known in our
Solar System.
Observed by amateur
astronomer Richard
Miles in conjunction
with several schools.

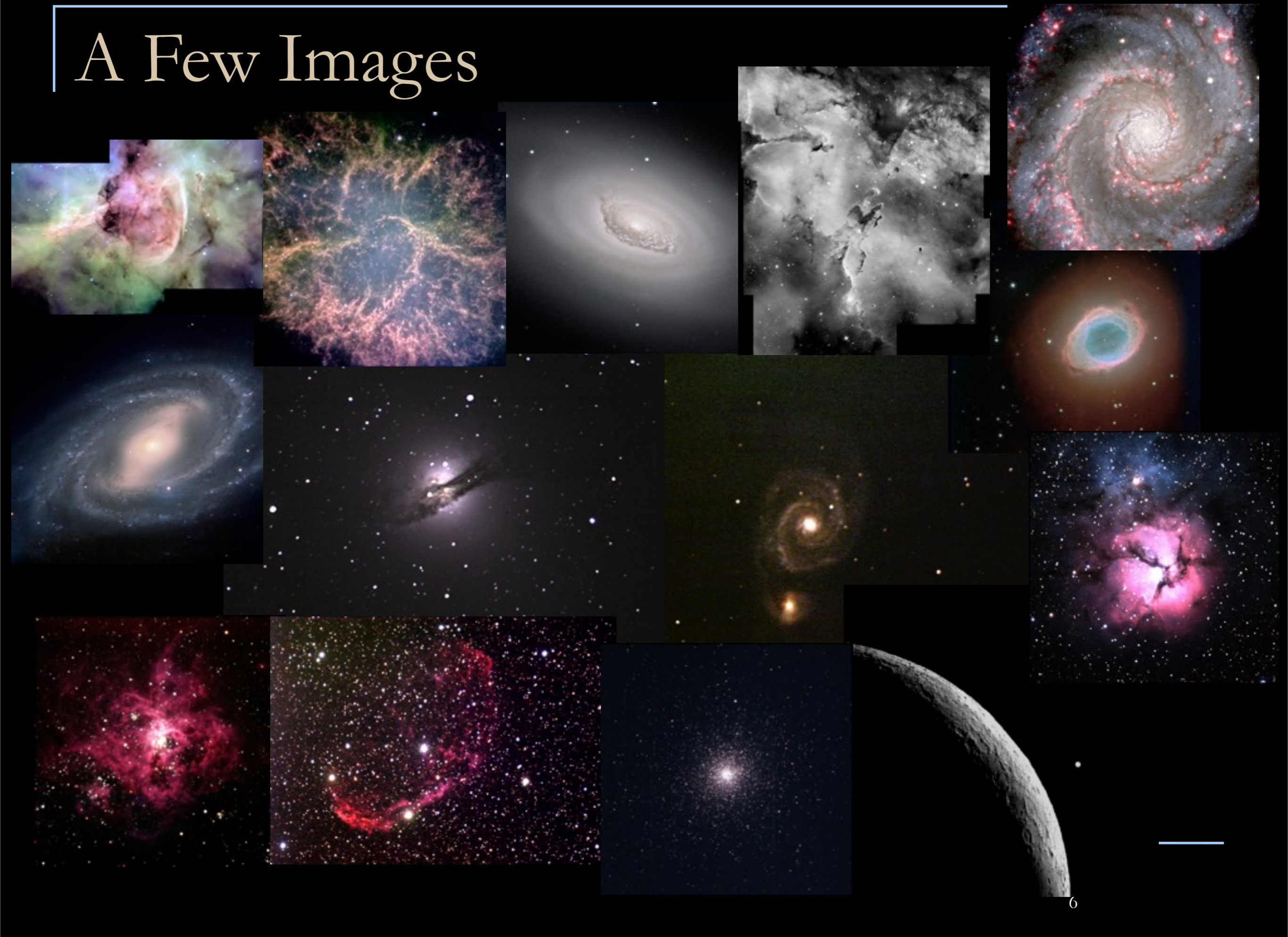
Expansion rate of the Crab Nebula as
measured by Olivia Gomez –
8% of the speed of light!



and:

Possible Black Holes & Eclipsing Binary Star Systems

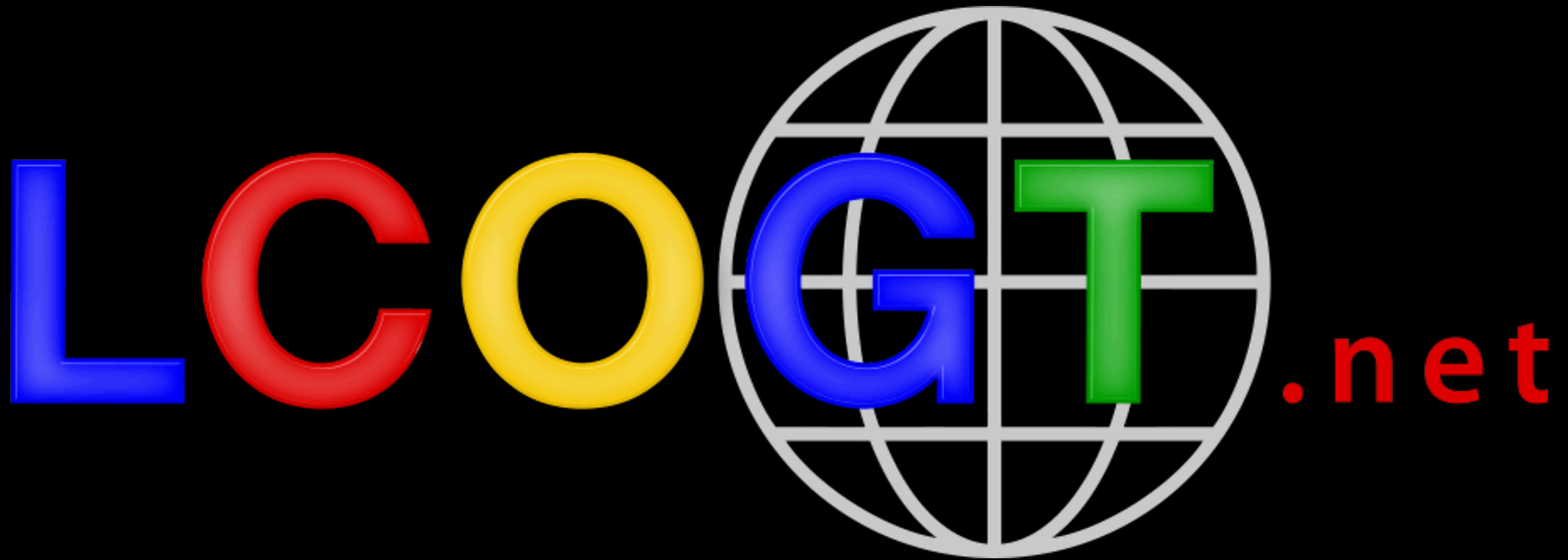
A Few Images



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