

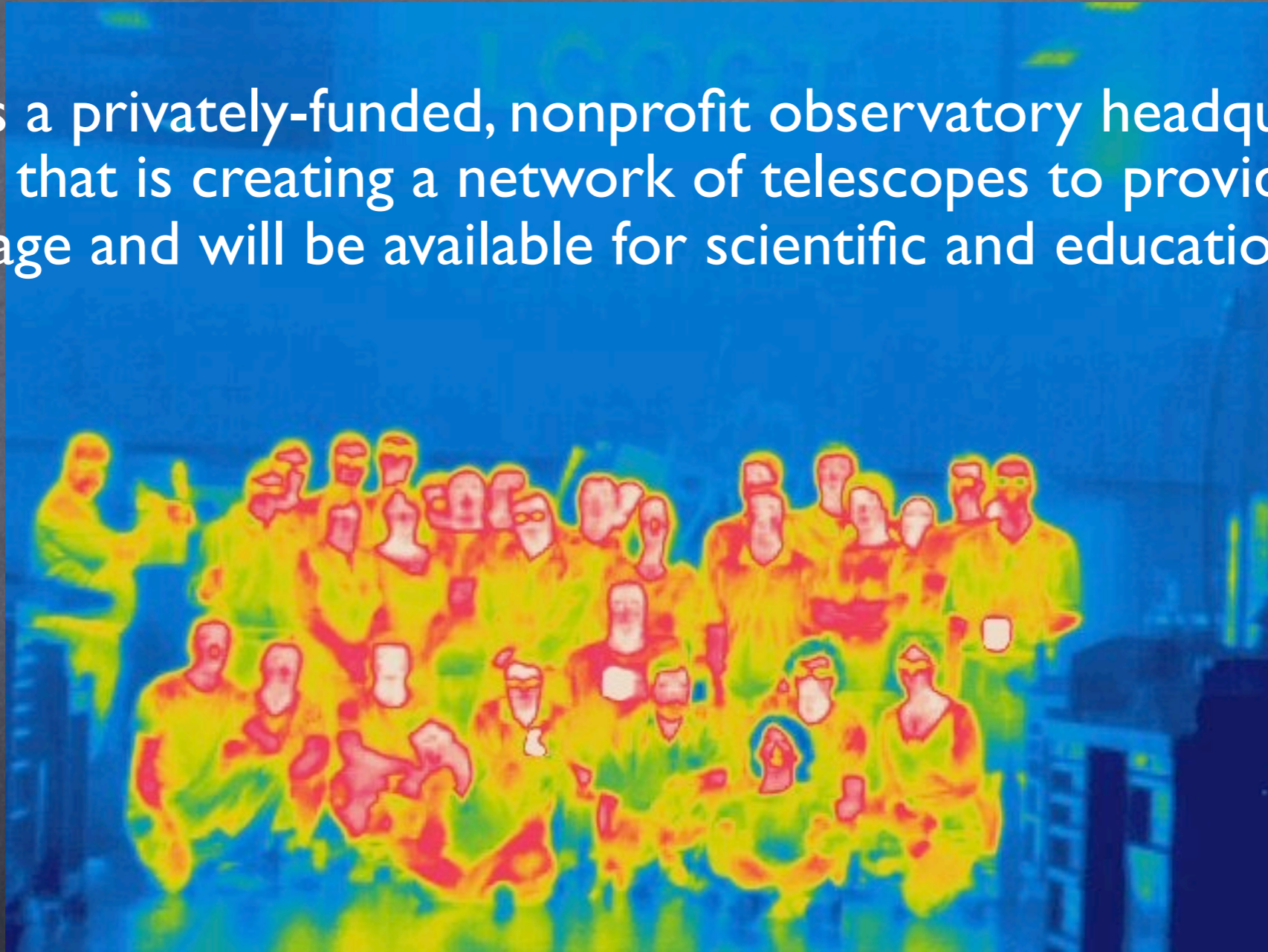
Las Cumbres Observatory Global Telescope Network

Rachel J. Ross
KITP Teacher's Conference
March 27, 2010

Who?

Who?

LCOGT is a privately-funded, nonprofit observatory headquartered in Goleta, CA that is creating a network of telescopes to provide 24/7 all-sky coverage and will be available for scientific and educational uses.



Main focus is time-domain astronomy.
(Extrasolar planets, supernovae, GRBs, variable stars, etc.)

What?

What?

A network that provides all sky coverage all day every day ...



~22 x 0.4m

~18 x 1.0m

2 x 2.0m

... with research-grade instrumentation.



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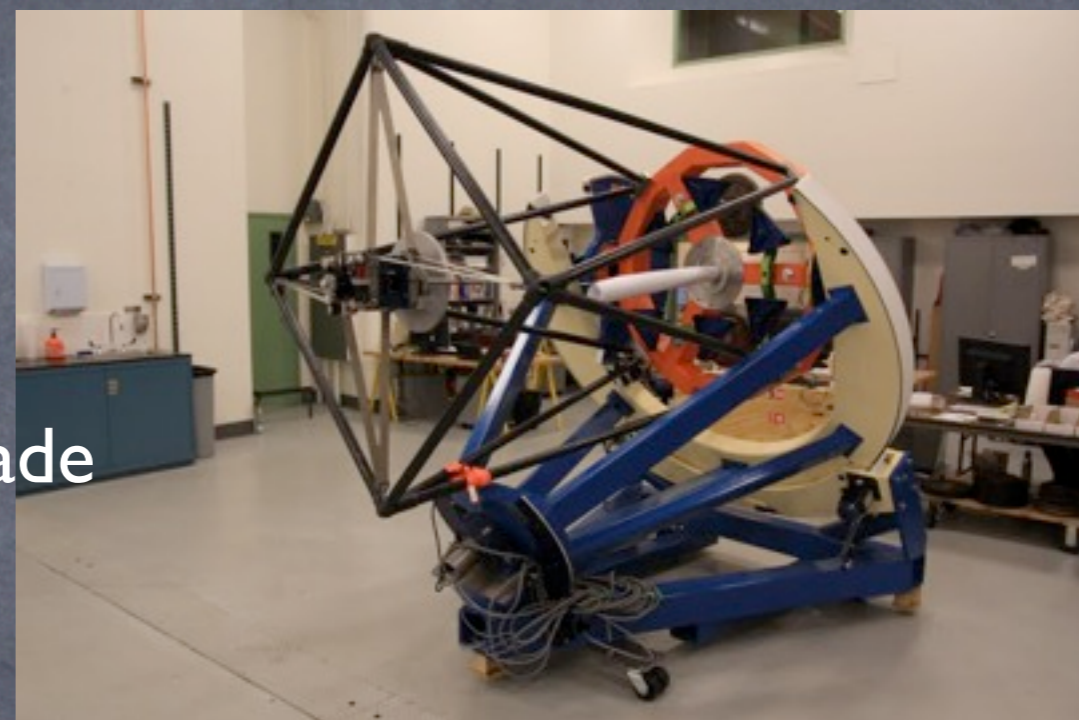


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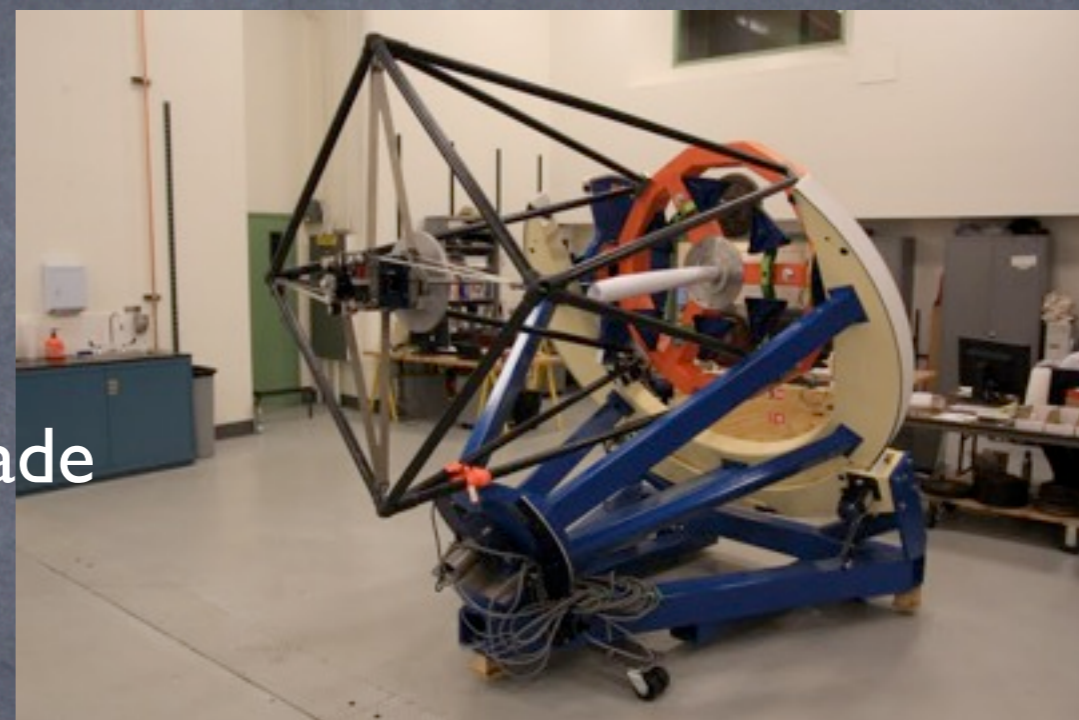


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A community-driven website rich with resources, activities, information, news, as well as a publicly available archive of data and online processing tools.

Registered users will be able to post new resources/information, comment and rate existing material, participate in forums, apply for telescope time, and more!

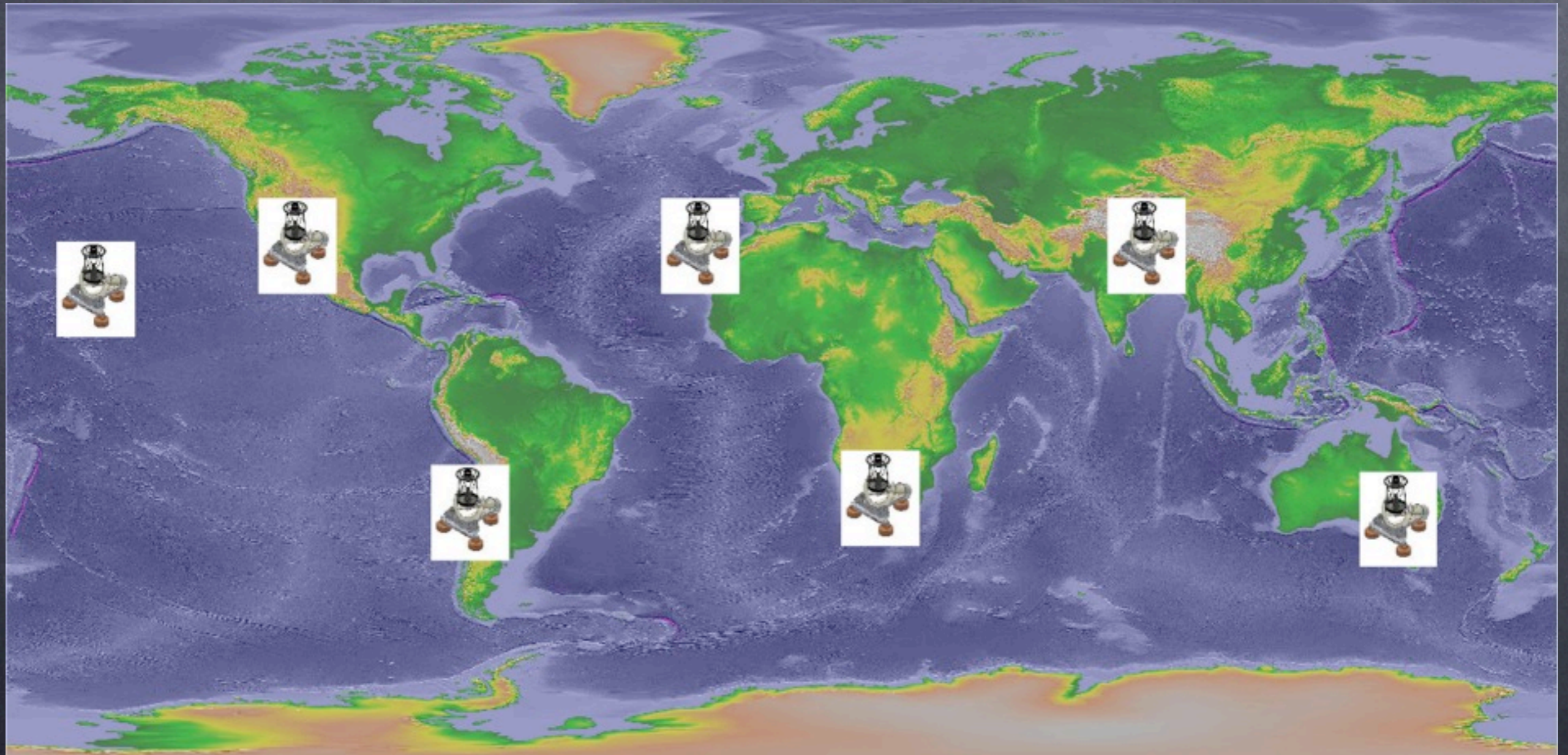
What? (continued)

What? (continued)



Where?

Where?



Why?

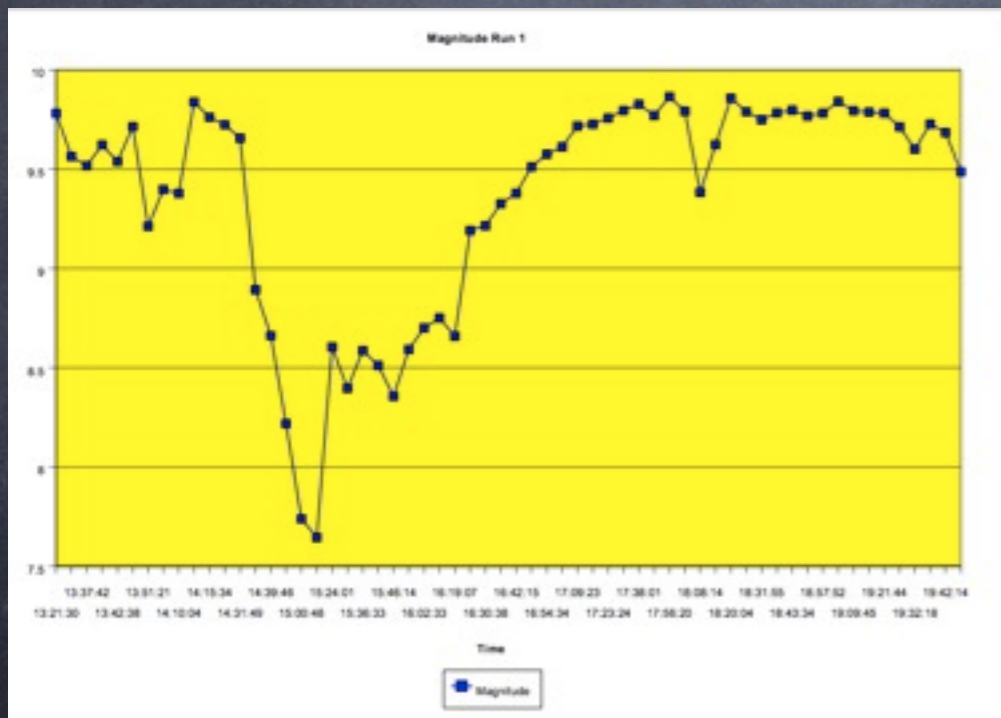
Why?

Teachers will (eventually) be able to use telescopes live or queued in their classrooms and participate in several ongoing research opportunities. Some of these projects may include:

Microlensing
Supernovae
Asteroids
Open Clusters
and more!

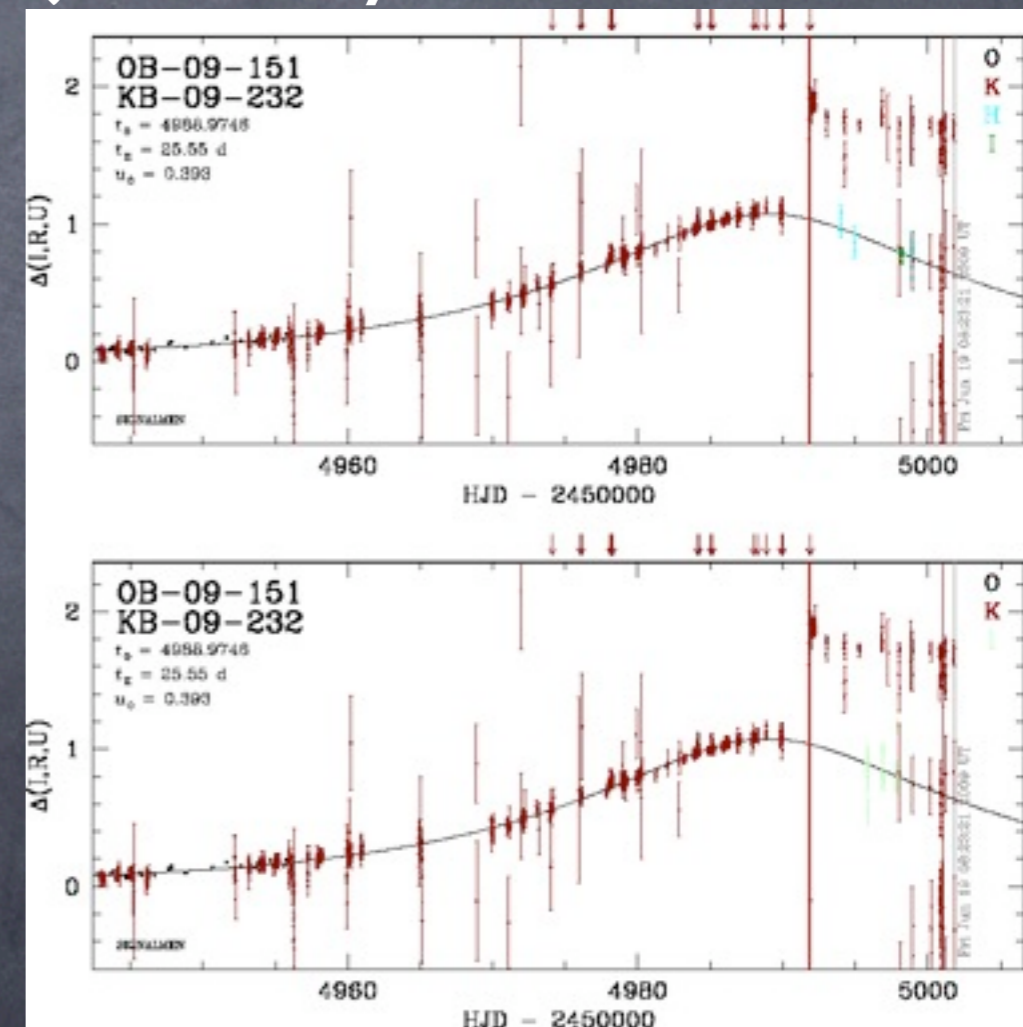
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Light curve of a binary star system taken by a Goleta Valley Jr. High student using the 14" Muhlenberg Observatory located in Coonabarabran, Australia. This project won fourth place in the California State Science Fair in 2008

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Supernovae
Asteroids
Open Clusters
and more!



Microlensing event of KB-09-232, observations (blue and dark green additions) by a group of 4 students in the UK.

Why? (continued)

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- Can be used as a hook to get students interested in other sciences (such as physics, chemistry, geology, biology, archeology, ...), as well as technology, engineering, mathematics (STEM), and can also be tied in with art, literature, history, and more.

Why? (continued)

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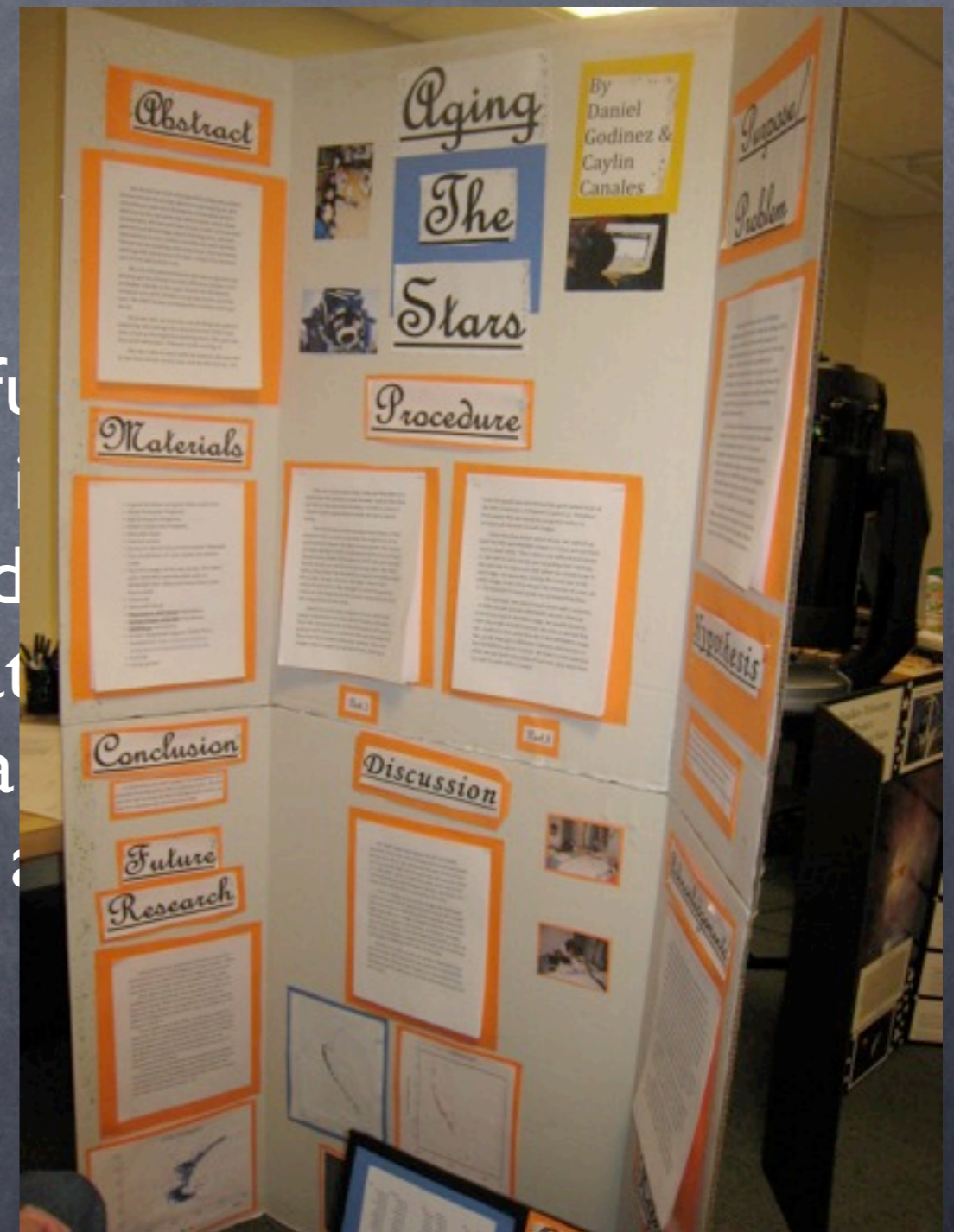
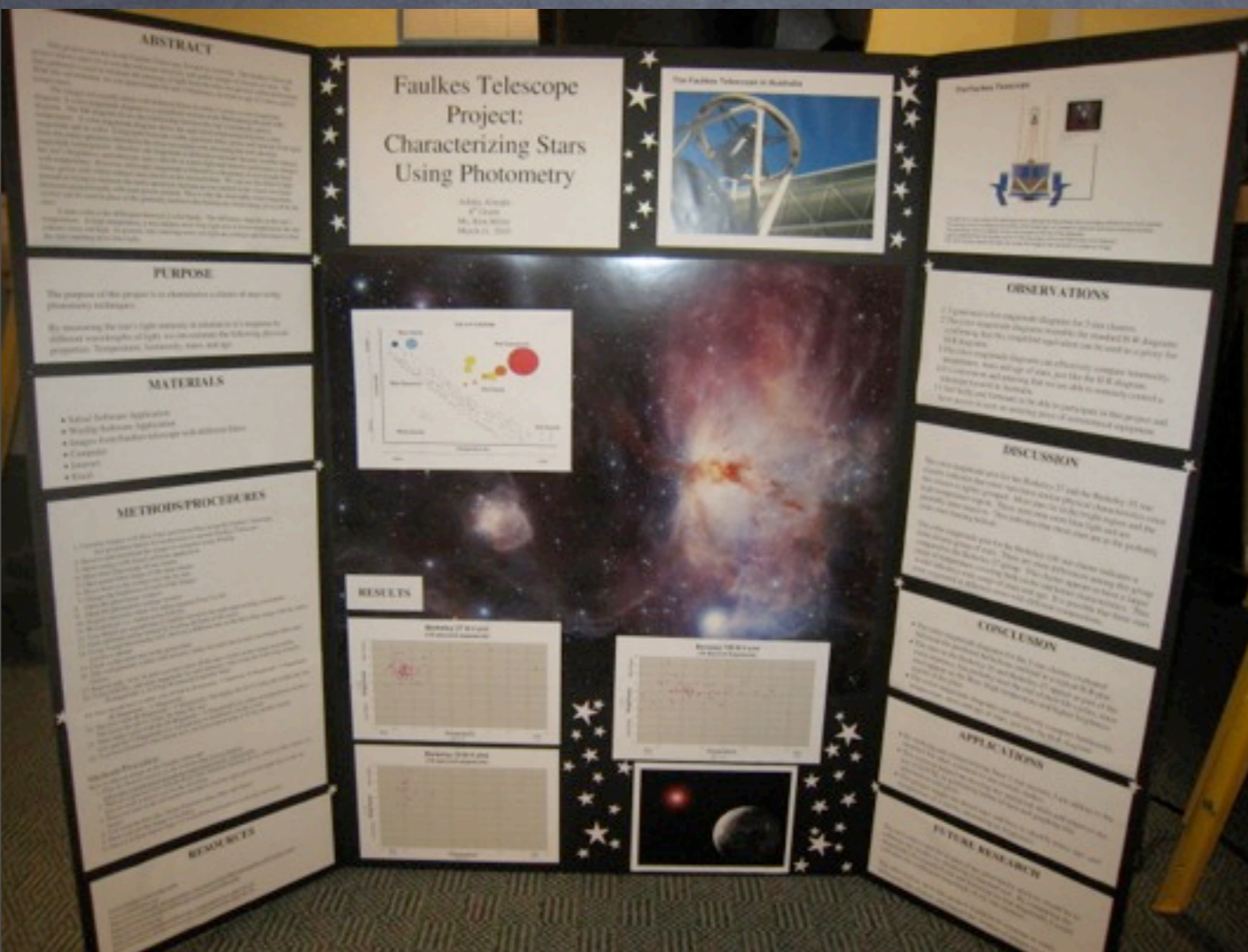
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- Fits into several standards through elementary, middle, and high school:
 - CA state standards: 3rd, 5th, 8th, and Earth Science/Physics in high school

Why? (continued)

Why? (continued)

The goal is not to create a world full of astronomers, but to motivate learners to pursue an interest in science and related fields to better understand the world around them. The skills acquired from participating in research projects, such as self-motivation and critical thinking, are valuable in every subject area.

Why? (continued)



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When?

When?

Within the next year, some time will become available to use on the 0.4m telescopes.

By 2013, the network should be completed.

Images taken with a 0.4m telescope located in the parking lot of LCOGT in Goleta, CA



How?

How?

- Check out our website at: www.lcogt.net
- Send an email: rross@lcogt.net or through the contact page on the website
- We are even on Facebook and Twitter!

All you need is a computer, an internet connection, motivation, and imagination!

We will always keep you
in the dark.

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