

Palomar Observatory

The 200-inch telescope has an observing partnership that includes the following institutions:

- Caltech (owners),
- Jet Propulsion Laboratory (NASA),
- Cornell University (New York),
- American Museum of Natural History (New York),
- Oxford University (England)
- National Optical Astronomy Observatory

The 200-inch telescope is used 363 nights a year from sunset to sunrise (weather permitting).

A new observing program, the Palomar Transient Factory (<http://www.astro.caltech.edu/ptf/index.html>), has begun using the 48-inch and 60-inch telescopes at Palomar, and as of July 2010, has discovered 523 supernovae. This is a collaboration of the following:

- Caltech, Infrared Processing and Analysis Center (California)
- Lawrence Berkeley National Laboratory (California),
- Berkeley (California)
- Las Cumbres Observatory Global Telescope Network (USA, Australia and England)
- Columbia (New York) and Weizmann Institute (Israel).

Palomar has begun a new adaptive optics program for the 60-inch telescope. For that project Caltech will be partnered with institutions from India and China.

Palomar has already deployed adaptive optics on its 200-inch telescope. Some results are shown to the right and below. Note that with adaptive optics, the 200-inch telescope can achieve finer resolution than the Hubble Space Telescope.



Public visits to Palomar

2003: 44,733	2006: 100,268
2004: 59,706	2007: 114,928
2005: 79,435	2008: 118,248
	2009: 117,587

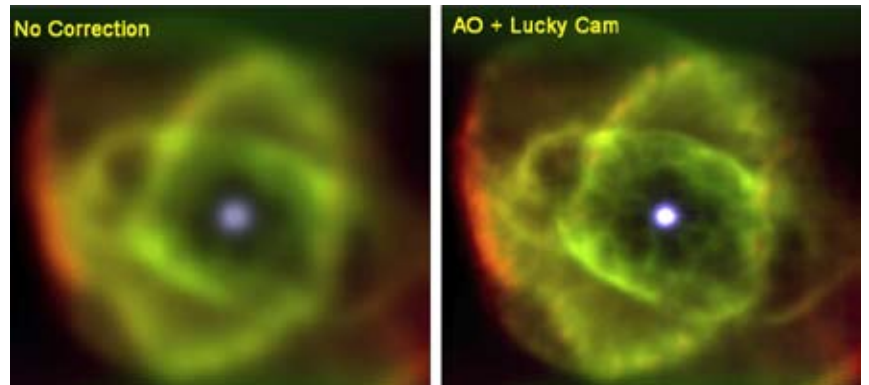
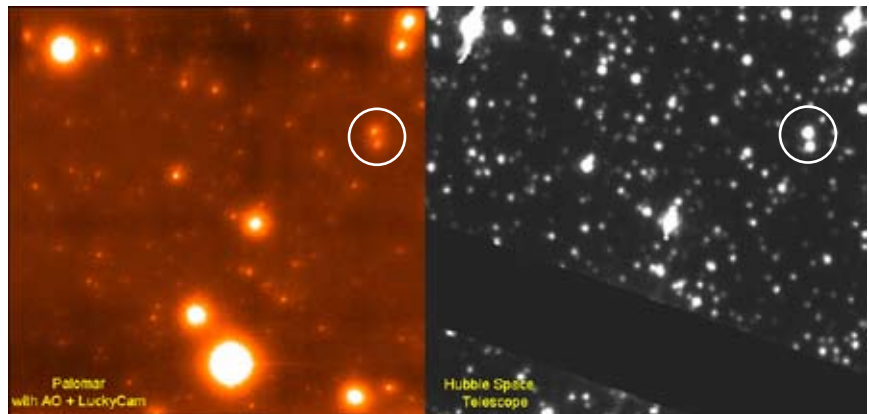


Image taken with 200-inch without adaptive optics

Image taken with 200-inch with adaptive optics



The above images compare the 200-inch telescope (left) with the Hubble Space Telescope (right). The circles show two identical stars. While Hubble has the darker background, the Palomar 200-inch scope has finer resolution of detail.

Left are images of exoplanets HR8799b, HR8799c and HR8799d. Exoplanets are planets around stars other than our own. Most of the 400 exoplanets discovered as of 2009 are inferred from wobbles in their stars light; these, however, are on of the first to be imaged directly. Imaging is made possible by a combination of adaptive optics and instrumentation that masks the star. This image is shown with the orbits of Neptune and Jupiter for comparison.

This flyer and other information on lighting is available at www.brightstarmemeculavalley.org.

