

# Young Astronomer Award Winners

In 1992, amid dwindling funding for high-school science programs, Charles Allen saw the need to involve more of America's youth in astronomy. He and other key members of the Astronomical League looked for a way to make astronomy and astron-

**By David Tytell**

omers more accessible to students across the nation. Their answer was the National Young Astronomer Award (NYAA).

Since it was first presented in 1993, the NYAA has been available to high-school students in the United States. To be eligible, an applicant must be between the ages of 14 and 19, have not yet enrolled in college, and have completed some form of astronomical research. The applications are then put through two rounds of judging, with the final round conducted by professional astronomers.

This year's winner is Patrick L. Kelly, a senior at Sidwell Friends School in Washington, D.C., where he organized an astronomy club. In addition to his membership in the Northern Virginia Astronomy Club, for the past three years Kelly has spent his summers at the University of Arizona Alumni

Association's Astronomy Camp. Offered through Steward Observatory, this program encourages participants to conduct their own research projects using 40- and 60-inch telescopes atop Mount Lemmon, as well as the 61-inch reflector on Mount Bigelow (see the April issue, page 80).

During the past summer Kelly also worked as an intern at the Carnegie Institution of Washington in Washington, D.C. For his project, entitled "The Color-Magnitude Relation in Hickson Compact Group 62," Kelly was teamed with Daniel Kelson, a Carnegie postdoctoral fellow. Using photometric data Kelson had obtained from the 1-meter Swope telescope at Las Campanas Observatory in Chile, Kelly determined the colors and magnitudes of galaxies within this moderately dense group and used that information to understand the properties and ages of those galaxies. "I analyzed the properties of the



CYNTHIA KELLY

Patrick L. Kelly, this year's winner of the Astronomical League's National Young Astronomer Award, with his first-place prize: a 10-inch LX200 telescope donated by Meade Instruments. Kelly's winning project involved the photometric study of galaxies.

color-magnitude plot against those of the high-density Virgo and Coma clusters," explains Kelly. "The slopes of the color-magnitude relations in both environments are similar, but the group galaxies have much greater scatter, which suggests that group galaxies are fundamentally similar to cluster galaxies, just not as mature." Kelly, who will major in astrophysics at Harvard University, hopes to publish his findings in the coming months.

Along with the first-place honor, Kelly

received a 10-inch Meade LX200 telescope and an all-expenses-paid trip to Astrocon, the Astronomical League's national convention, last July in Ventura, California. (However, Kelly was not there to receive the award. Instead he was in Rehovot, Israel, doing another astronomical research project, this time as part of the Weizmann Institute of Science's International Summer Science Institute.) Kelly also gets a "lifetime pass" to McDonald Observatory in Texas, which entitles him to share telescope time with the observatory's astronomers.

NYAA's second-place winner this year is Tiffany Titus, a senior at Battle Creek Area Math and Science Center in Michigan. Her project entailed calculating the orbital elements of main-belt asteroid 737 Arequipa. She also received a trip to Astrocon and a lifetime pass to McDonald Observatory. Third place went to Stephanie Fawcett, a junior at Boulder High School in Colorado, for her essay, "Application of Extrasolar Planetary Data in the Search for Extraterrestrial Life Using the Drake Equation."

Robert Gent, vice president of the Astronomical League and

NYAA chair, concedes that, though enthusiasm for the award is high, very few students apply. To obtain information about the NYAA, contact Gent at 703-751-6805, bobgent@aol.com; or Terry Mann at 937-678-5032, starsrus@infinet.com; or visit the Astronomical League's Web site at [www.astroleague.org](http://www.astroleague.org).

DAVID TYTELL is in Boston University's science-journalism graduate program and is a Sky & Telescope assistant editor.

## Past National Young Astronomer Award Winners

Year	First Place	Title of Project
1999	Elizabeth Fernandez	Active Galaxies in the Perseus Supercluster
1998	Mary Dombrowski	Cataclysmic Stellar Variability with Eclipsing Binary Superimposition
1997	Heather Cameron	Solar Observation Station
1996	Mani Mahjouri	Simulation of Charged Particle Motion in Jupiter's Magnetosphere
1995	Heather Castellano	Elements of Impact Crater Formation
1994	Stephanie Cinereski	Solar Flare and Sunspot Research
1993	Blake Warren Thomas	Spectrographic Analysis of Cepheid Pulsation