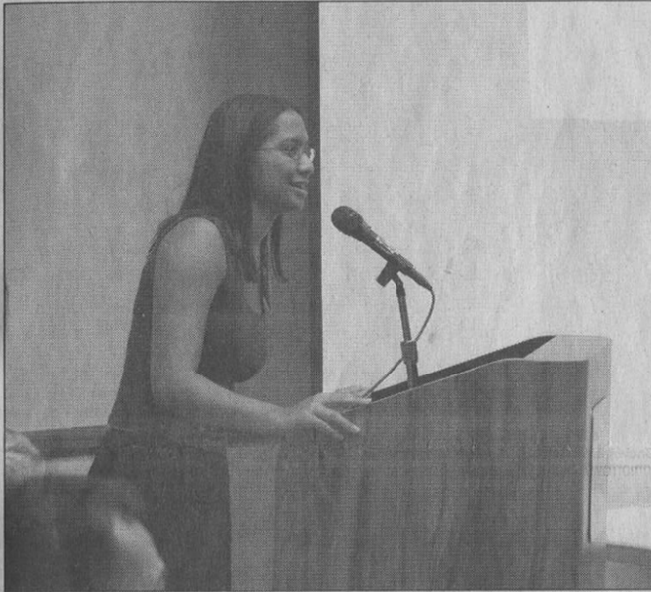


# High-tech internships are 'growing the next generation of scientists'



U.S. Air Force Research Laboratory / FRANK RIZZO photo

**Kawailehua Kuluhiwa**, a Maui Community College graduate who interned at the W.M. Keck Observatory on the Big Island this summer, presented her research in a special segment of the AMOS Technical Conference sponsored by the Air Force Research Laboratory last week. She said the Akamai Internship program was an opportunity to try out a different field of astronomy and network with experienced scientists. Kuluhiwa is working on a degree in astronomy from UH-Hilo.

By **ILIMA LOOMIS**  
Staff Writer

**KIHEI** — A dozen Maui students got the chance to work in science for the summer and still be close to home.

They were participating in the Akamai Internship program, which placed Maui Community College students with local high-tech businesses for hands-on experience.

"The greater goal is growing the next generation of scientists," said Leslie Wilkins, vice president of the Maui Economic Development Board, which administers the project.

The California-based Center for Adaptive Optics, which funded the Akamai project, modeled the internships after a similar program it operates at the University of California at Santa Cruz.

The 12 Maui interns spent about eight weeks working full-time with employers on Maui or the Big Island. Each completed a research project, prepared a paper and gave a talk on the results of their studies, some at the AMOS Technical Conference held last week in Wailea — and they received a \$2,500 stipend.

"This definitely opened up a lot

of doors for me," said 21-year-old Kawailehua Kuluhiwa, who worked at research facilities for the W.M. Keck Observatory in Waimea on the Big Island. "I met a lot of other scientists through working on my internship, both on Maui and through Keck."

From Keanae and raised in Kihei, Kuluhiwa is a 2000 Maui High School graduate who earned her associate's degree from MCC this year and is now studying astronomy at the University of Hawaii at Hilo. She found out about the program through her job as a student engineer for Boeing.

Over the summer she worked at Keck on a project gathering and studying data on a "massive eclipsing binary stellar system" called RY Scuti.

"It's a system made up of two stars that are gravitationally bound with one another," she said. "They're aligned in such a way that from Earth, both stars are eclipsing."

Her data succeeded in giving scientists a clear picture of the system's nebula, the cloud of gas or dust that surrounds an object in space.

"We were very interested in its nebula," she said. "The nebula is

displayed in a very unusual way, that intrigued people like my supervisors and other astronomers as well."

Kuluhiwa said she's still not sure what field she'd like to enter, but said she's always been interested in astronomy.

"Ever since I was five, I was so interested in the stars and the universe," she said. "I was just amazed by the celestial itself."

For 2001 King Kekaulike High School graduate Charles Oliveira, the internship was a chance to practice the skills he was learning at MCC's electronics program.

The 20-year-old Makawao resident worked at Boeing for six weeks, traveling to the top of Haleakala to work with sensors and troubleshoot some of the electronics equipment used to keep the Air Force observatories in working order.

"It was a good opportunity to get hands-on experience and learn more about electronics," he said.

Oliveira worked at "characterizing" the sensors, testing them to verify that all the sensors had the same base-line readings.

"We were testing laser beams to see the intensity, and measuring the voltages from the sensor," he

said.

Now he's back at MCC studying physics, electronics and high-performance computing in preparation for his degree. He expects to graduate at the end of the school year.

Oliveira said he'd like to find a job on Maui, but even with the internship under his belt he felt the field would be competitive, and he was prepared to leave if he couldn't find work.

"There are some jobs on Maui, with the (Maui High Performance Computing Center) and on Haleakala, but not that many, I think," he said.

Paul Kervin, the Air Force Research Laboratory's chief scientist at AMOS, said local employees are highly sought after by Maui-based science and technology businesses.

"We are really pushing very hard to get as many folks as we can from the local area," he said. "Even when we can get folks from the Mainland, there's a good chance those people will just spend a couple of years and move off again."

He said he'd been impressed with the caliber of employees he's seen come out of the UH system.

"They're some of the best young talent that we've got," he said.