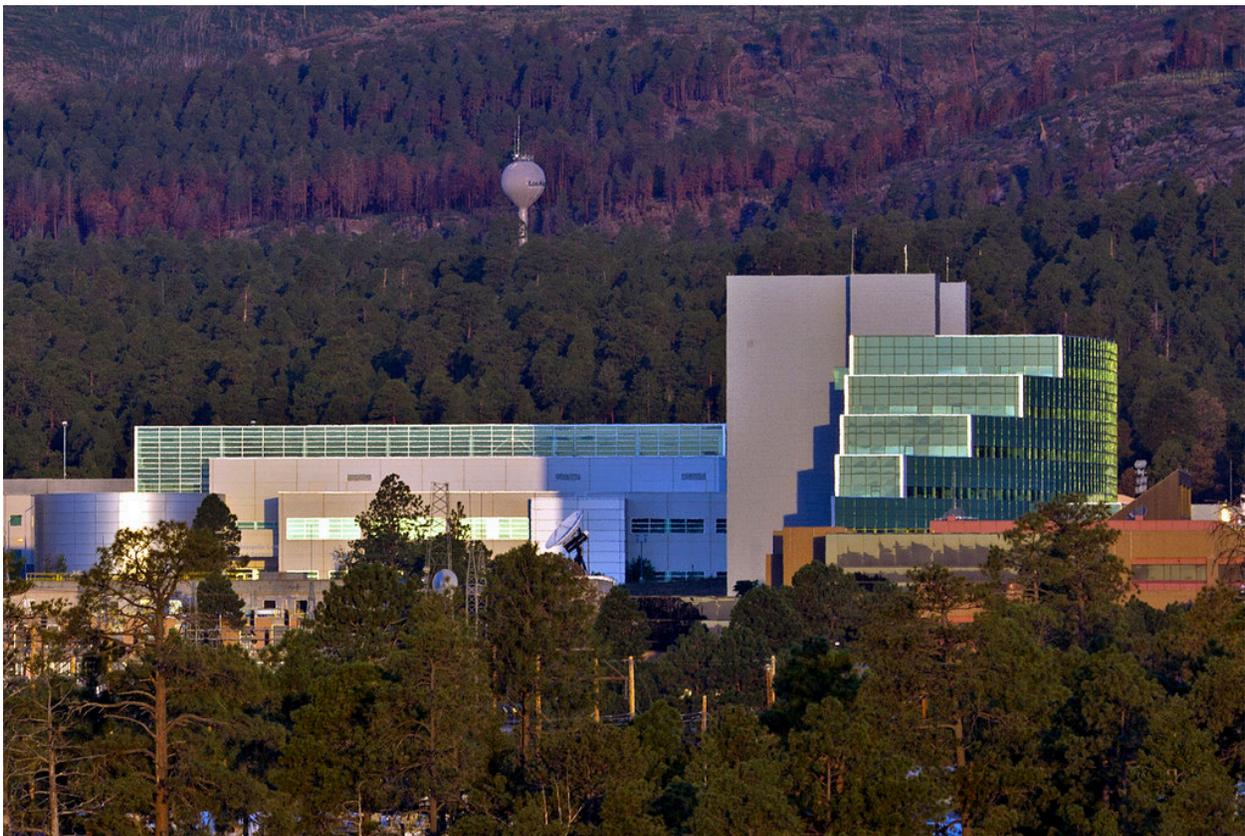


Aspen Elementary, Los Alamos Middle School students take top award in 26th New Mexico Supercomputing Challenge

April 27, 2016



'Solving the Rubik's Cube 2.0' includes 3D simulation

LOS ALAMOS, N.M., April 26, 2016—Andy Corliss, Phillip Ionkov and Ming Lo of Aspen Elementary, and Max Corliss of Los Alamos Middle School won first place in the New Mexico Supercomputing Challenge for their project, “Solving the Rubik’s Cube 2.0,” Tuesday at Los Alamos National Laboratory. They created a three-dimensional simulation of a Rubik’s cube, as well as an implementation of a cube-solving algorithm; they also won the Most Professional Presentation award for their efforts.

“The goal of this yearlong event is to teach student teams how to use powerful computers to analyze, model and solve real-world problems,” said David Kratzer of Los Alamos National Laboratory’s High Performance Computer Environments group, and

executive director of the Supercomputing Challenge. “Participating students improve their understanding of technology by developing skills in scientific inquiry, modeling, computing, communications and teamwork.”

This year’s second place winners are Christopher Leap and Nicholas Brown of Portales High School. They won for their project “Yavanchlan: Creating Optimal Strategies for Artificial Intelligence to Play Against Humans.” They studied techniques to enable efficient computer play of Yavanchlan, a variation they created of the board game Yavalanch. They also won the award for Best Report for their high-quality write-up of their work.

Los Alamos Middle School’s Lillian Petersen took third place for her project, “Detecting Climate Change Through Means and Extremes.” Her study aggregated data from thousands of weather stations around the world, which she processed and analyzed with a Python program she wrote to find trends in climate around the world. She also won the Community Impact Award for working with the Bradbury Science Museum to make a traveling exhibit that will be shown in museums across the country.

Read all the student reports on the [Supercomputing challenge website](#).

For more than a quarter century the challenge has:

- excelled in helping state high school graduates go on to college in STEM areas
- improved the information-based economy of the state of New Mexico by promoting computational thinking
- helped middle and high school students meet academic standards with academic excellence in math modeling, science and technical writing
- promoted collegiality and created excellent professional development among the community of educators.

The Supercomputing Challenge is open to any New Mexico high school, middle school or elementary school student. More than 200 students and teachers representing 57 teams from schools around the state spent the school year researching scientific problems, developing sophisticated computer programs and learning about computer science with mentors from the state’s national laboratories and other organizations. All the finalist teams received plaques for their schools, a large banner suitable for hanging and other gifts.

Scholarships worth more than \$13,000 were awarded at the Supercomputing Challenge Expo. Many other awards were distributed ranging from random \$100 gifts for finishing the academic marathon to team prizes for teamwork, programming prowess, and environmental impact.

Los Alamos National Laboratory, Los Alamos National Security, LLC, the State of New Mexico, and generous industry partners sponsor the Supercomputing Challenge across the country. A complete list of sponsors and supports of the Challenge is on its website.

About the Supercomputing Challenge

Founded in 1990, the New Mexico Supercomputing Challenge is a nonprofit educational organization that sponsors an annual computational science competition for middle and high-school students in New Mexico.

Since its inception, the Supercomputing Challenge has engaged more than 10,300 New Mexico students in computational science projects that prepare them for future endeavors in many science and high-technology fields. Past participants have succeeded in private industry and at the national laboratories. Major funding for the Supercomputing Challenge comes from national laboratories, local and national businesses and individual donors.

See a [participation map](#) for an effective visualization of the statewide program.

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