Welcome

To the

35th Annual

Awards

Ceremony

Computational Modeling Science Math
Supercomputing Challenge

You Took the Challenge!
You Finished the Marathon!

Computational Modeling
Science
Math
Supercomputing Challenge

Los Alamos National Laboratory Welcomes You!

Kathy Keith
Director
Community Partnerships Office

Supercomputing Challenge

Santa Fe Community College Welcomes You!

Margaret Peters
Vice President
Academic and Student Affairs
Santa Fe Community College

Computational Modeling Science Math Supercomputing Challenge

Consult Welcomes You!

Alphabetical by first name:
David, Karen, Patty, Rashan

Computational Modeling Science Math
Supercomputing Challenge

Congratulations to the 2024-2025 Finalists Teams!

The Finalists

Albuquerque Academy

Additive Manufacture Kinetics and Thermodynamics Model

Team Member: Harrison Schiek

Sponsors: Jay Garcia

Alex Benedict

The Finalists

La Cueva High School

You Only Look Once Machine Learning Solution to Orbital Debris Detection and Classification

Team Members: Hadwyn Link
Ximena Serna

Sponsor: Jeremy Jensen

Mentor: Mario Serna

The Finalists

Los Alamos High School

Constraining the Neutron Star Equation of State with Observation Data

Team member: Tate Plohr
Sponsor: JeeYeon Plohr
Mentors: Ingo Tews
Rahul Somasundaram

The Finalists

Los Alamos High School

Point Cloud Surface Reconstruction

Team Member: Andew Morgan

Mentor: Nathaniel Morgan

The Finalists

Santa Fe Preparatory School

Investigating Intersubjective Realities from Novel NLP and Chaos Theory Approach

Team Member: Camila Carreon

Sponsor: Jocelyn Comstock

Mentor: Mark Galassi

Computational Modeling Science Math Supercomputing Challenge

The Finalists

Santa Fe Preparatory School

Understanding and Predicting Trail Maintenance Needs Using Machine Learning Techniques

Team Members: Luke Rand

Isaac Olson

Sponsor: Jocelyn Comstock

The Finalists

Welch Home School

Analyzing Pre-Indo-European Theory of Etruscan Language Origins Using Topological Data Analysis

Team member: Helena Welch

Sponsor: Cindy Welch

Mentor: Paul Welch

The Finalists

Welch Home School

Modeling Fast Moving Objects in Crowded Astronomical Neighborhoods

Team member: Kalliope Luna Welch
Sponsor: Cindy Welch
Mentor: Paul Welch

Computational Modeling Science Math Supercomputing Challenge

NetLogo Agent Based Model

Presented by

Stephen Guerin
Simtable

NetLogo Agent Based Model

Team: The Effects of Mycorrhizal Fungal Networks and Native Species on Plant Health in Arid Environments

School: New Mexico Academy for the Media Arts

Team Members: Eduardo Dorado
Ana Sofia Rodriguez
Zaaliyah Thomas

Teacher/Mentor: Dr. Tanya Mueller

Get out your badge number for a random prize drawing for finishing this marathon!

The winner is….

Supercomputing Challenge

Excellence in Teamwork Award

Sponsored by New Mexico Technology In Education

Presented by Kaley Woelfel

Excellence in Teamwork Award

The Efficiency of Magnetic Transportation

School: Justice Code

Team: Kolton Walker
Junior Offor

Sponsor: Becky Campbell

Excellence in Research Award

Sponsored by New Mexico Technology In Education

Presented by Kaley Woelfel

Excellence in Research Award

Constraining the Neutron Star Equation of State with Observational Data

School: Los Alamos High School

Team: Tate Plohr

Sponsor: Jee Yeon Plohr

Human Computer Interaction Award

Sponsored by

Stephen Guerin

Simtable

Human Computer Interaction Award

How Can Virtual Reality Help Kids Escape the Confines of Hospitals by Entering New Worlds?

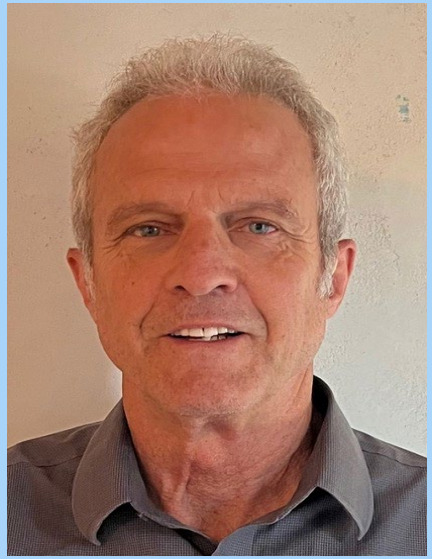
School: New Futures

Team: Xa'Ria Rush

Sponsor Rachel Kilman

Head Judges

Richard Barrett



Michael Trahan

Kaley Woelfel

Computational Modeling Science Math Supercomputing Challenge

Recognition of Expo Judges

Hats off to our 22 Expo and Finalist Judges from Challenge Alums, Grad Students, National Labs, Nonprofits, Small and Large Businesses.

Please stand up and take a bow.

Recognition of Expo Judges

Leila Alhemali
Rusty Davis
Scott Levy
Lonnie Rednour
Geoff Valdez

Char Arias
Susan Gibbs
James Overfelt
Dorian Sims
Kyreen White

Richard Barrett
Max Lazo
Lee Rand

Computational Modeling
Science
Math
Supercomputing Challenge

Finalist Judges

Stephen Guerin	Simtable
Irene Lee	NMSU and MIT
Kasra “Kaz” Mavin	Simtable
Mark Petersen	Los Alamos National Laboratory
Timothy Thomas	Sandia National Laboratories
Michael Trahan	Sandia National Laboratories
Kaley Woelfel	Blue Halo

Computational Modeling
Science
Math
Supercomputing Challenge

Volunteer of the Year Award

Congratulations to

Thomas Bowles

For his many hours of helping the
Supercomputing Challenge

Environmental Modeling Award

Presented by David Kratzer

Environmental Modeling Award

Simulating Interactions Between Varied Predators and Preys

School: Santa Fe Preparatory School

Team: Marlow Lichty

Sponsor: Jocelyn Comstock

Community Impact Award

Presented by Kyreen White
UNM and Challenge Alumni

Computational Modeling Science Math
Supercomputing Challenge

Community Impact Award

The impact of Food Insecurity in New Mexico

School: Justice Code

Team: Mekhi Bradford
Lukas Lee Baires

Sponsor: Becky Campbell

Computational Modeling Science Math
Supercomputing Challenge

Innovation in Data Science Award

Presented by Rashan Issac

Innovation in Data Science Award

Investigating Intersubjective Realities From Novel NLP and Chaos Theory Approach

School: Santa Fe Preparatory School

Team: Camila Carreon

Sponsor: Jocelyn Comstock

Creativity and Innovation Award

Presented by Tim Thomas
Sandia Laboratories

Creativity and Innovation Award

Predicting the drug and micro-nano plastic interactions inside the body using molecular dynamics modeling and machine learning

School: Albuquerque Academy

Team: Ahana Koushik

Sponsor: Jay Garcia

Magellan Award
An Explorer and a Risk Taker

Sponsored by Daniel and Mel Fuka, Challenge Advocates

Computational Modeling
Science
Math
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Magellan Award
An Explorer and a Risk Taker

Sponsored by Daniel and Mel Fuka, Challenge Advocates

Exploring the Moon with VEX Robotics

School: Truman Middle School

Team: Josue Ochoa
Kaleb Martinez

Sponsor: Natali Barreto Baca

Computational Modeling Science Math
Supercomputing Challenge

Middle School Award

Presented by Karen Glennon

Computational Modeling Science Math
Supercomputing Challenge

Middle School Award

Modeling Urban Heat Islands and Rural Areas

School: Mountain Elementary

Team: Emmaline Fadner

Sponsor: Zeynep Unal

Teacher Appreciation Award

I touch the future, I teach

Christa McAuliffe

Supercomputing Challenge

Teacher Appreciation Award

Dr. Tanya Mueller - New Mexico Media Arts

Ana Sofia Rodriquez, Eduardo Dorado, Zaaliyah Thomas please come up here!

These are the comments the NMMA team sent in!

Supercomputing Challenge

Teacher Appreciation Award

Mrs. Zeynep Unal **Mountain Elementary**

Emmaline Fadner please come up here!

These are the comments the Mountain Elementary Team sent in.

Computational Modeling Science Math Supercomputing Challenge

Teacher Appreciation Award

Becky Campbell - Justice Code

Lukas Baires and Mekhi Bradford
Please come up here!

These are the comments the Justice Code Team sent in.

NUMBERS PLEASE!

Supercomputing Challenge

LOGO FOR NEXT YEAR!
2025-2026

Presented by

And the LOGO is

LOGO for Year 2025-2026

Team: Luke Rand
Isaac Olson

School: Santa Fe Preparatory School

Sponsor: Jocelyn Comstock

Computational Modeling Science Math
Supercomputing Challenge

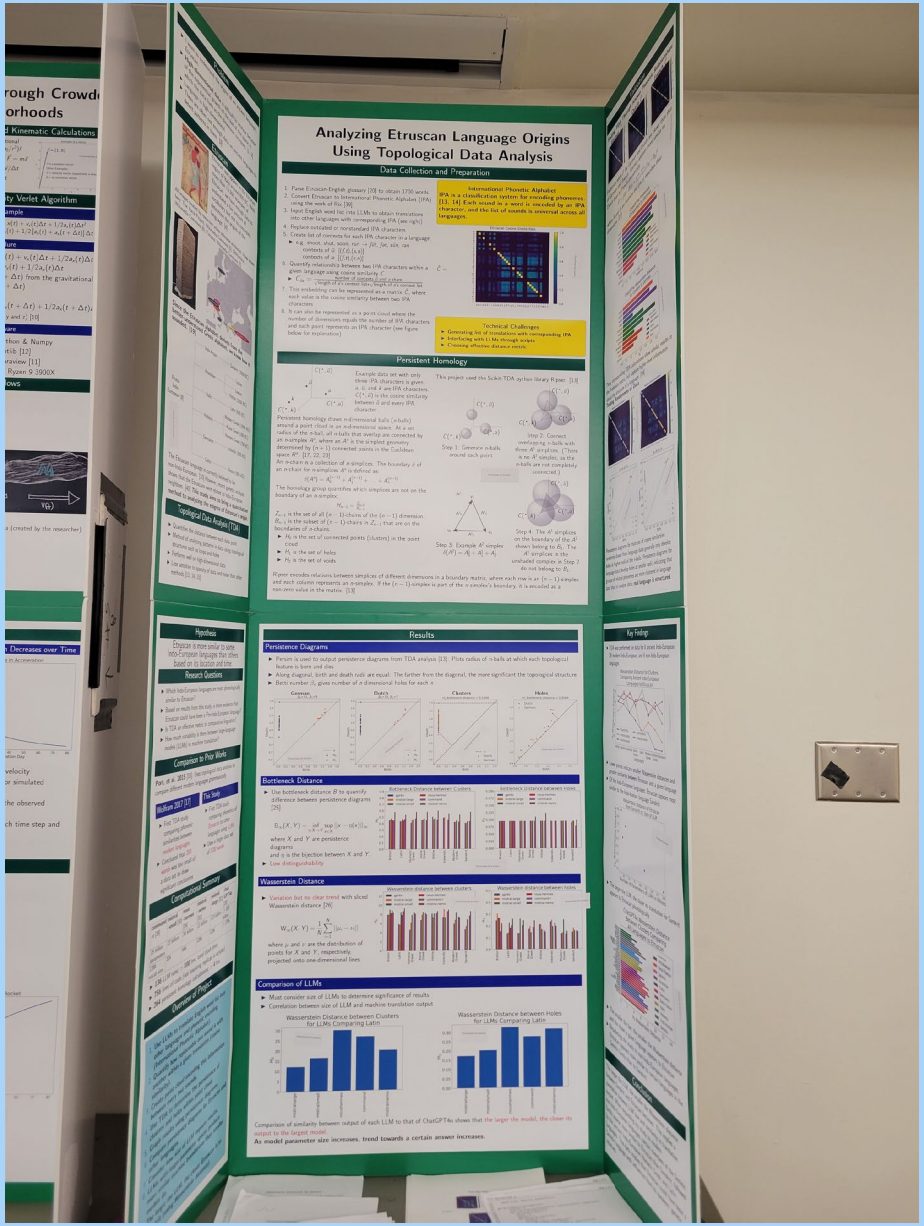
Technical Poster Award

Technical Poster Award

Team: Helena Welch

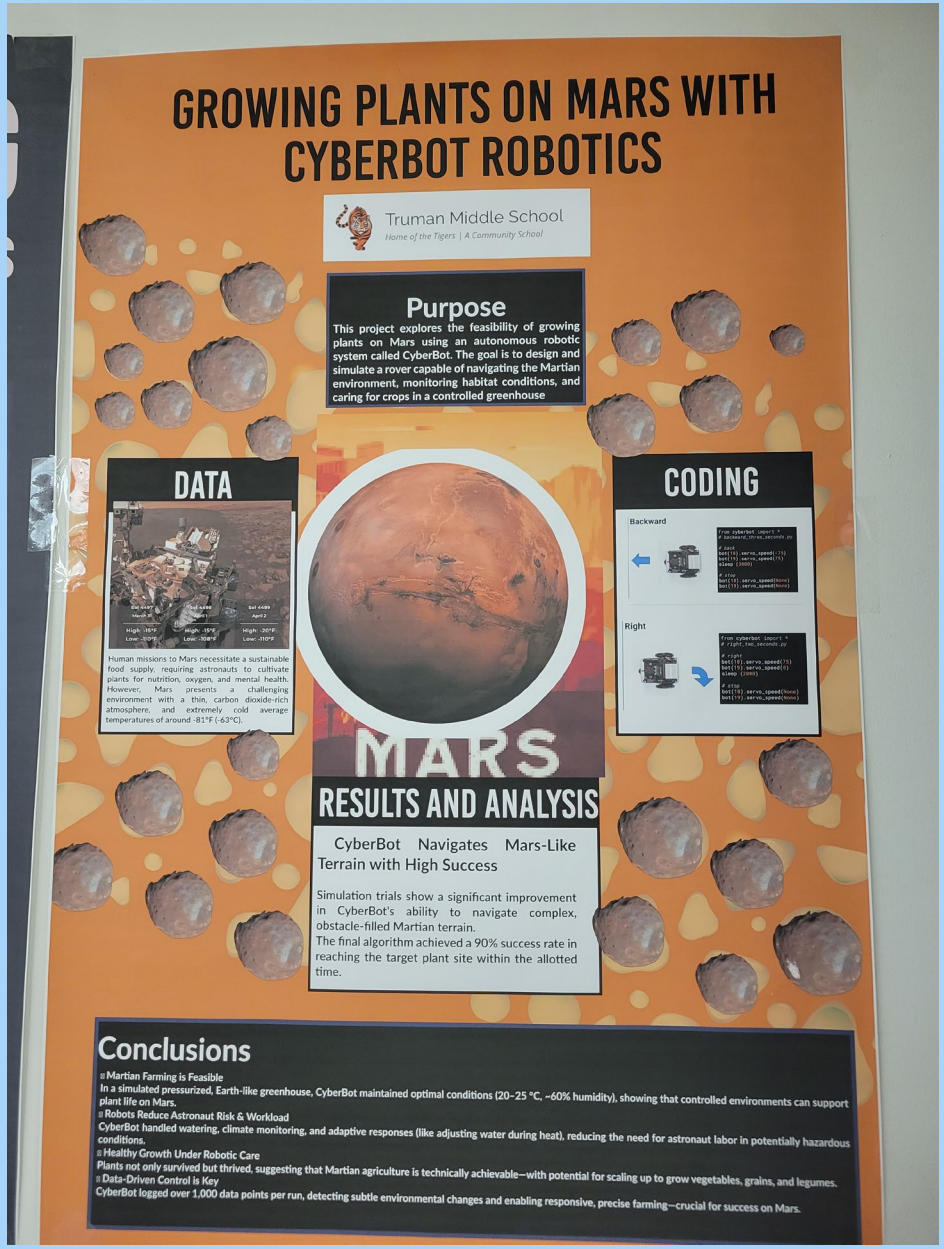
School: Welch Homeschool

Sponsor: Cindy Welch
Paul Welch



Crowd Favorite

Supercomputing Challenge



Crowd Favorite Award

Team: Carlos Cantu
Zinoc Fang

School: Truman Middle School

Sponsor: Natali Barreto Baca

Computational Modeling Science Skills
Supercomputing Challenge

New Mexico Network for Women in Science and Engineering

Presented by Anna Llobet Megias

Computational Modeling Supercomputing Challenge

New Mexico Network for Women in Science and Engineering

New Mexico School for the Arts

Team Member: Elisea Jackson
Megan Odom

Sponsor: Sarah Rowe, Acacia McCombs

Mentor: Felina Rivera Calzadillas

Longevity Award

Presented by David Kratzer

Longevity Award

Congratulations to

Andrew Morgan

for being in the Supercomputing Challenge

for 7 years!

Judges' Special Awards

Supercomputing Challenge

Judges' Special Award
Perseverance

Growing Plants on Mars with CyberBot Robotics

School: Truman Middle School

Team Members: Carlos Cantu
Zinoc Fang

Sponsor: Natali Barreto Baca

Judges' Special Award
Best User Interface

The Impact of Food Insecurity in New Mexico

School: Justice Code

Team: Mekhi Bradford
Lukas Lee Baires

Sponsor: Becky Campbell

Judges' Special Award
Computational Chemistry

Predicting the drug and micro/nano-plastic interactions inside the body using molecular dynamics modeling and machine learning

School: Albuquerque Academy

Team: Ahana Koushik

Sponsor: Jay Garcia

Judges' Special Award
Advancing Geospatial Analytics

Understanding and Predicting Trail Maintenance Needs Using Machine Learning Techniques

School: Santa Fe Preparatory School

Team: Luke Rand
Isaac Olson

Sponsor: Jocelyn Comstock

Judges' Special Award
Creative Application of Computational Linguistics

Pre-Indo-European Theory of Etruscan Language Origins Using Topological Data Analysis

School: Welch Homeschool

Team: Helena Welch

Sponsors: Cindy Welch
Paul Welch

Judges' Special Award
Computational Material Science

Additive Manufacture Kinetics and Thermodynamics Model

School: Albuquerque Academy

Team: Harrison Schiek

Sponsors: Jay Garcia
Alex Benedict

Supercomputing Challenge

Sponsor Recognition

Kudos for our sponsors!!

The people in these businesses and companies helped us reach the Finish Line!!

Primary Partners

- Los Alamos National Laboratory
- Triad National Security, LLC

Gold Partners

- New Mexico Consortium
- Sandia National Laboratories

Silver Partners

*Gulf Stream Group and bigbyte.cc
* PNM
* Westwind

Bronze Partners

* New Mexico Technology in Education (NMTIE) in conjunction with NMCHECS
* Simtable/Redfish Group

Computational Modeling Science Math
Supercomputing Challenge

Educational Partners

- The Center for Connected Learning CCL and Computer-Based Modeling/NetLogo
- Central New Mexico Community College
- CNM Ingenuity, Inc.
- Eastern New Mexico University
- MIT Starlogo Nova
- New Mexico Highlands University

Computational Modeling Science Math
Supercomputing Challenge

Educational Partners Continued

- New Mexico Institute of Mining and Technology
- New Mexico Public Education Department
- New Mexico State University
- Northern New Mexico College
- San Juan College
- Santa Fe Community College
- University of New Mexico
- UNM CARC, Center for Advanced Research Computing

Supercomputing Challenge

Friends of the Challenge

- Computer Science Alliance
- Creighton Edington
- Daniel and Mel Fuka
- Clint Hubbard
- David Janecky
- Hugo Rivera Calzadillas

Friends of the Challenge Continued

- Irene Lee/Roger Critchlow
- Maximo Lazo
- NM Network for Women in Science and Engineering
- Windspirit Therapeutic Massage

You too can be a Challenge Sponsor!

Support the Supercomputing Challenge when you shop!
Visit http://www.smithsfoodanddrug.com/inspire. Search for Supercomputing Challenge either by name or MY603 and then click Enroll.

New users need to create an account requiring some basic information, a valid email address and a *rewards* card.

Scholarship Recipients

Scholarship Committee

Hope Cahill, **Creighton Edington**,

and **Dana Roberson**

Computational Modeling Science Math
Supercomputing Challenge

Scholarship Recipients

Presented by Rashan Isaac

NAME	COLLEGE	HIGH SCHOOL
Andrew Morgan	UNM-LA	Los Alamos HS
Elisea Jackson	Yale	NMSA
Ximena Serna	New Mexico Tech	La Cueva HS

Supercomputing Challenge

And the moment we have ALL been waiting for ……

Another
Drum roll,
Please!!

BUT FIRST -----

Computational Modeling Science Math
Supercomputing Challenge

For Real this Time…….

Our Third Place Winner is …….

Another Drum roll, please!

THIRD PLACE

You Only Look Once Machine Learning Solutions to Orbital Debris Detection and Classification

SCHOOL: La Cueva High School

TEAM: Hadwyn Link
Ximena Serna

SPONSOR: Jeremy Jensen

CONGRATULATIONS!

Supercomputing Challenge

Our Second Place Winner is……

DRUM ROLL PLEASE!

SECOND PLACE

Point Cloud Surface Reconstruction

SCHOOL: Los Alamos High School

TEAM: Andrew Morgan

SPONSOR: Nathaniel Morgan

WELL DONE!!

Computational Modeling Science Math Supercomputing Challenge

The moment we've all been waiting for

Our First Place Winner is ……

FIRST PLACE

Constraining the Neutron Star Equation of State with Observation Data

SCHOOL: Los Alamos High School

TEAM: Tate Plohr

SPONSOR: JeeYeon Plohr

VERY NICE WORK!!

Computational Modeling Science Math Supercomputing Challenge

FIRST PLACE WINNERS

Brief overview of their project!

Go for it!!

Closing Comments from our Executive Director David Kratzer

Supercomputing Challenge