

**70th Annual
Greater San Diego Science and Engineering Fair**

2024

FIRST AWARDS

First Award

Junior Division



First Award - Junior Division

Animal Sciences



First Award - Junior Division
Animal Sciences

Grant Alexander

La Jolla Country Day School
Advisor: M. Bessler

First Award - Junior Division
Animal Sciences

Sydney O'Donnell

The Rhoades School
Advisor: R. Hunker

CSEF Nominee

First Award - Junior Division
Behavioral and Social Sciences



First Award - Junior Division
Behavioral and Social Sciences

Princess-Hafsah Aly Saad Aly

Bright Horizon Academy
Advisor: N. Naserelddin

First Award - Junior Division
Behavioral and Social Sciences

Andrea Martinez

Nazareth School
Advisor: M. Reed

First Award - Junior Division
Behavioral and Social Sciences

Maryam Purmul

Bright Horizon Academy
Advisor: N. Naserelddin

CSEF Nominee

First Award - Junior Division
Behavioral and Social Sciences

Jake Sarles

The Rhoades School
Advisor: R. Hunker

CSEF Nominee

Thermo Fisher Scientific
Junior Innovators Challenge

**First Award - Junior Division
Behavioral and Social Sciences**

Bella Schere

**The Children's School
Advisor: D. Quincannon**

CSEF Nominee

**Thermo Fisher Scientific
Junior Innovators Challenge**

First Award - Junior Division

Biochemistry




First Award - Junior Division
Biochemistry

Alejandra Kroes

De Portola Middle School
Advisor: M. Bridges

First Award - Junior Division
Biomedical/Health Sciences, and
Biomedical Engineering

The background of the slide is a dark, abstract composition. It features a series of bright green and blue diagonal lines that create a sense of depth and movement, resembling a digital or data-driven environment. Interspersed among these lines are faint, glowing patterns of binary code (0s and 1s), which further enhance the technological and scientific theme of the award announcement.

First Award - Junior Division
Biomedical/Health Sciences, and
Biomedical Engineering

Anabia Ehsan
Omar Abdulaziz

Thurgood Marshall Middle School
Advisor: A. Abdurrab

CSEF Nominee

Thermo Fisher Scientific
Junior Innovators Challenge

First Award - Junior Division
Biomedical/Health Sciences, and
Biomedical Engineering

Emily Diep

Connect Academy Poway Unified
Advisor: J. Teixeira

CSEF Nominee

First Award - Junior Division
Biomedical/Health Sciences, and
Biomedical Engineering

Veera Kalakota

Oak Valley Middle School
Advisor: B. Gonzalez

First Award - Junior Division

Chemistry



First Award - Junior Division
Chemistry

Ilyas Amin

Bright Horizon Academy
Advisor: N. Naserelddin

First Award - Junior Division
Chemistry

Jonathan Brough

La Jolla Country Day School
Advisor: M. Bessler

CSEF Nominee

First Award - Junior Division
Chemistry

Zhizhen Chen

The Cambridge School High School
Advisor: M. Mayne

CSEF Nominee

First Award - Junior Division

Chemistry

Gregory Croff

Nazareth School
Advisor: M. Reed

CSEF Nominee

First Award - Junior Division

Chemistry

Fuaad Dodi

Bright Horizon Academy
Advisor: N. Nasereldin

CSEF Nominee

**Thermo Fisher Scientific
Junior Innovators Challenge**

First Award - Junior Division
Chemistry

Jenna Stoneman

De Portola Middle School
Advisor: M. Bridges

CSEF Nominee

First Award - Junior Division
Computational Biology and
Bioinformatics



First Award - Junior Division
Computational Biology and
Bioinformatics

Yaalini Kathiravan
Arunachalam Vinayagam
Pacific Trails Middle School
Advisor: M. Mareth

CSEF Nominee

Thermo Fisher Scientific
Junior Innovators Challenge

First Award - Junior Division

Computer Science and Systems Software



First Award - Junior Division

Computer Science and Systems Software

Rishabh Bhatia

The Rhoades School

Advisor: R. Hunker

First Award - Junior Division
Computer Science and Systems Software

Junyoung Huh

La Jolla Country Day School
Advisor: N. Parker

First Award - Junior Division
Computer Science and Systems Software

Mikhael Kamshad

San Diego Hebrew Day School
Advisor: J. Rivard

CSEF Nominee

**Thermo Fisher Scientific
Junior Innovators Challenge**

First Award - Junior Division

Computer Science and Systems Software

Ahmad Zubaidi

Bright Horizon Academy

Advisor: N. Nasereldin

CSEF Nominee

First Award - Junior Division
Earth and Environmental Sciences



First Award - Junior Division
Earth and Environmental Sciences

Ariana Samady
Embry Blais

The Rhoades School
Advisor: R. Hunker

CSEF Nominee

First Award - Junior Division
Earth and Environmental Sciences

Steven Chen

Pacific Trails Middle School
Advisor: M. Mareth

CSEF Nominee

**Thermo Fisher Scientific
Junior Innovators Challenge**

First Award - Junior Division
Earth and Environmental Sciences

Aminah Siddiqui

Bright Horizon Academy
Advisor: N. Nasereldin

CSEF Nominee

First Award - Junior Division

Engineering:

Electrical, Mechanical, and Robotics



First Award - Junior Division

Engineering:

Electrical, Mechanical, and Robotics

Vishwanathan Vinayagam

Adhiban Arulseivan

Pacific Trails Middle / Thurgood Marshall Middle

Advisor: M. Mareth

CSEF Nominee

First Award - Junior Division
Engineering:
Electrical, Mechanical, and Robotics

Oliver Cottrell

La Jolla Country Day School
Advisor: N. Parker

CSEF Nominee

**Thermo Fisher Scientific
Junior Innovators Challenge**

First Award - Junior Division

Engineering:

Electrical, Mechanical, and Robotics

Declan Henckels

Guhan Senthil

Pacific Trails Middle School

Advisor: M. Mareth

CSEF Nominee

**Thermo Fisher Scientific
Junior Innovators Challenge**

First Award - Junior Division
Engineering:
Electrical, Mechanical, and Robotics

Yusra Salem

Bright Horizon Academy
Advisor: N. Nasereldin

CSEF Nominee

**Thermo Fisher Scientific
Junior Innovators Challenge**

First Award - Junior Division

Engineering:

Electrical, Mechanical, and Robotics

Ahran Thaper

The Rhoades School

Advisor: R. Hunker

First Award - Junior Division

Engineering:

Electrical, Mechanical, and Robotics

Virginia Zhu

Oak Valley Middle School

Advisor: Y. Yu

CSEF Nominee

**Thermo Fisher Scientific
Junior Innovators Challenge**

First Award - Junior Division

**Engineering:
Energy, Materials, and Transport**



First Award - Junior Division
Engineering:
Energy, Materials, and Transport

Alexander Allport

The Children's School
Advisor: D. Quincannon

CSEF Nominee

First Award - Junior Division

**Engineering:
Energy, Materials, and Transport**

Danielle-Elizabeth Mensah-Baah

Nazareth School

Advisor: M. Reed

First Award - Junior Division
Engineering:
Energy, Materials, and Transport

Jack Pacente

Mt. Helix Academy
Advisor: K. MacDonald

CSEF Nominee

First Award - Junior Division

**Engineering:
Energy, Materials, and Transport**

Jeyanth Narayan Parthasarathy

Pacific Trails Middle School

Advisor: M. Abelmann

CSEF Nominee

**Thermo Fisher Scientific
Junior Innovators Challenge**

First Award - Junior Division

Microbiology



First Award - Junior Division
Microbiology

Muhammad Behnawa

Bright Horizon Academy
Advisor: N. Nasereldin

First Award - Junior Division

Microbiology

Charlotte Capaldi

The Rhoades School
Advisor: R. Hunker

CSEF Nominee

**Thermo Fisher Scientific
Junior Innovators Challenge**

First Award - Junior Division
Microbiology

Audrey Castillejos

De Portola Middle School
Advisor: M. Bridges

CSEF Nominee

First Award - Junior Division
Microbiology

Ali Dieujuste

De Portola Middle School
Advisor: M. Bridges

First Award - Junior Division
Microbiology

Amaya Fernandez

Chula Vista Middle School
Advisor: T. Tom

CSEF Nominee

First Award - Junior Division

Physics and Astronomy



First Award - Junior Division
Physics and Astronomy

Zoey Chen

Carmel Valley Middle School
Advisor: S. Fredin

First Award - Junior Division
Physics and Astronomy

Asher Kaplan

San Diego Hebrew Day School
Advisor: J. Rivard

CSEF Nominee

First Award - Junior Division
Physics and Astronomy

Helene Nguyen

Nazareth School
Advisor: M. Reed

CSEF Nominee

First Award - Junior Division
Physics and Astronomy

Alfonso Sanchez

Extraordinary Private Home School
Advisor: S. Sanchez

CSEF Nominee

**Thermo Fisher Scientific
Junior Innovators Challenge**

First Award - Junior Division
Physics and Astronomy

Samuel Sternson

The Rhoades School
Advisor: R. Hunker

CSEF Nominee

**Thermo Fisher Scientific
Junior Innovators Challenge**

First Award - Junior Division

Plant Sciences



First Award - Junior Division

Plant Sciences

Leilani Schelper

The Children's School
Advisor: D. Quincannon

CSEF Nominee

**Thermo Fisher Scientific
Junior Innovators Challenge**

First Award - Junior Division

Plant Sciences

Ritam Sen

Francis Parker School
Advisor: J. Pierce

CSEF Nominee

**Thermo Fisher Scientific
Junior Innovators Challenge**

First Award - Junior Division
Plant Sciences

Olympia Sternson

The Rhoades School
Advisor: R. Hunker

First Award - Junior Division

Product Testing



First Award - Junior Division
Product Testing

Ivonne Cohen

San Diego Hebrew Day School
Advisor: J. Rivard

CSEF Nominee

First Award - Junior Division
Product Testing

Jacob Crivello

St. Gregory the Great Catholic School
Advisor: C. Girard

CSEF Nominee

First Award - Junior Division
Product Testing

Reema Jasim

Bright Horizon Academy
Advisor: N. Naserelddin

First Award - Junior Division
Product Testing

Anthony Nayab

St. Gregory the Great Catholic School
Advisor: C. Girard

First Award - Junior Division

Product Testing

Wyatt Raspotnik

The Children's School
Advisor: T. Brown

CSEF Nominee

First Award - Junior Division

Product Testing

Olivia Spenla


Nazareth School
Advisor: M. Reed

CSEF Nominee

First Award
Senior Division

The background features a dark teal to black gradient with intricate, wavy patterns of fine lines and a grid of small, light blue dots that create a sense of depth and movement.

First Award - Senior Division
Animal Sciences

The background features a dark teal to black gradient with intricate, wavy patterns of fine lines and a grid of small, light blue dots that create a sense of depth and movement.

First Award - Senior Division
Animal Sciences

Tanya Mandyam

Westview High School
Advisor: S. Halander

CSEF Nominee

First Award - Senior Division
Behavioral and Social Sciences

The background features a dark blue gradient with intricate, wavy patterns of teal and light blue dots. These dots form a grid that curves and flows across the frame, creating a sense of depth and movement. The overall aesthetic is modern and technical.

**First Award - Senior Division
Behavioral and Social Sciences**

Aneesh Nudurupati

**Mt. Carmel High School
Advisor: A. Klingborg**

CSEF Nominee


**First Award - Senior Division
Behavioral and Social Sciences**

Steve Zhang

**Francis Parker School
Advisor: E. Hart**

CSEF Nominee

First Award - Senior Division
Biochemistry

The background features a dark teal to black gradient with intricate, wavy patterns of fine lines and a grid of small, light blue dots that create a sense of depth and movement.

First Award - Senior Division
Biochemistry

Marianthe Dresios

Carlsbad High School
Advisor: J. Dresios

CSEF Nominee


First Award - Senior Division

Biochemistry

Vibha Yadav Ganji
Vidha Yadav Ganji

Del Norte High School
Advisor: N. Ganji

CSEF Nominee



First Award - Senior Division
Biomedical/Health Sciences, and
Biomedical Engineering

**First Award - Senior Division
Biomedical/Health Sciences, and
Biomedical Engineering**

Dhruv Bantval

**Canyon Crest Academy
Advisor: A. Siegel**

**First Award - Senior Division
Biomedical/Health Sciences, and
Biomedical Engineering**

**Rohan Bojja
Nikhil Maturi**

**Del Norte High School
Advisor: J. Maturi**

**First Award - Senior Division
Biomedical/Health Sciences, and
Biomedical Engineering**

Saanvi Dogra

**Del Norte High School
Advisor: A. Callicott**

**First Award - Senior Division
Biomedical/Health Sciences, and
Biomedical Engineering**

Leanne Fan

**Westview High School
Advisor: D. MacMartin**

CSEF Nominee

**First Award - Senior Division
Biomedical/Health Sciences, and
Biomedical Engineering**

Anirudh Kalyanaraman

**Mt. Carmel High School
Advisor: K. Wytmans**

CSEF Nominee

**First Award - Senior Division
Biomedical/Health Sciences, and
Biomedical Engineering**

Zinia Khattar

**Del Norte High School
Advisor: A. Khosla**

CSEF Nominee

**First Award - Senior Division
Biomedical/Health Sciences, and
Biomedical Engineering**

Jaelyn Liang

**Westview High School
Advisor: M. Christopher**

**First Award - Senior Division
Biomedical/Health Sciences, and
Biomedical Engineering**

Christina Tian

**Westview High School
Advisor: D. MacMartin**

CSEF Nominee


**First Award - Senior Division
Biomedical/Health Sciences, and
Biomedical Engineering**

Sydney Zhang

**Westview High School
Advisor: S. Halander**

CSEF Nominee

First Award - Senior Division
Cellular and Molecular Biology

The background features a dark teal to black gradient with intricate, wavy patterns of fine lines and a grid of small, light blue dots that create a sense of depth and movement, resembling a digital or scientific visualization.

First Award - Senior Division
Cellular and Molecular Biology

Ethan Leem

Canyon Crest Academy
Advisor: M. Zerwekh

First Award - Senior Division
Cellular and Molecular Biology

Gavin Ni

La Jolla Country Day School
Advisor: N. Hao

CSEF Nominee


First Award - Senior Division
Cellular and Molecular Biology

Shreeya Patel

Del Norte High School
Advisor: C. Craig

CSEF Nominee

First Award - Senior Division
Chemistry


The background features a dark teal to black gradient with intricate, wavy patterns of fine lines and a grid of small, light blue dots that create a sense of depth and movement, resembling a molecular structure or a digital data visualization.

First Award - Senior Division
Chemistry

Juhyeok Lee
Yechan Park

Scripps Ranch HS / Otay Ranch HS
Advisors: P. Fowler / A. Masuy

CSEF Nominee

The background features a dark blue, almost black, field with a grid of small, light blue dots. The grid is not flat but curves and warps, creating a sense of depth and movement, similar to a perspective view of a grid on a curved surface or a digital landscape. The dots are more densely packed in some areas and more sparse in others, following the curvature of the surface.

First Award - Senior Division
Computational Biology and
Bioinformatics

First Award - Senior Division
Computational Biology and
Bioinformatics

Medha Aravind

Del Norte High School
Advisor: M. Nathan

First Award - Senior Division
Computational Biology and
Bioinformatics

Prakruti Bhatt

Del Norte High School
Advisor: D. Vyas

CSEF Nominee

First Award - Senior Division
Computational Biology and
Bioinformatics

Aarushi Garg

Canyon Crest Academy
Advisor: E. Gerstin

CSEF Nominee

First Award - Senior Division
Computational Biology and
Bioinformatics

Henry Hou

The Bishop's School
Advisor: D. Cameron

First Award - Senior Division
Computational Biology and
Bioinformatics

Nithika Vivek

Del Norte High School
Advisor: K. Ramesh

CSEF Nominee

First Award - Senior Division
Computational Biology and
Bioinformatics

Dishti Wadhvani

Del Norte High School
Advisor: A. Wadhvani

CSEF Nominee

First Award - Senior Division
Computational Biology and
Bioinformatics

Anvay Yadav

Del Norte High School
Advisor: M. Rao

CSEF Nominee

First Award - Senior Division

Computer Science and Systems Software

First Award - Senior Division
Computer Science and Systems Software

Vasant Arul

Canyon Crest Academy
Advisor: T. Mauro

CSEF Nominee

First Award - Senior Division
Computer Science and Systems Software

Alexander Backues

Canyon Crest Academy
Advisor: E. Gerstin

CSEF Nominee

First Award - Senior Division
Computer Science and Systems Software

Arnav Dagar

Canyon Crest Academy
Advisor: K. Hare

CSEF Nominee

First Award - Senior Division
Computer Science and Systems Software

Ella Desai

Canyon Crest Academy
Advisor: A. Mauro

CSEF Nominee

First Award - Senior Division
Computer Science and Systems Software

Riya Khushu

Francis Parker School
Advisor: J. Pierce

CSEF Nominee

First Award - Senior Division
Computer Science and Systems Software

Shounak Ray Chaudhuri

Francis Parker School
Advisor: J. Pierce

CSEF Nominee

First Award - Senior Division
Computer Science and Systems Software

Parth Saxena

Scripps Ranch High School
Advisor: P. Fowler

CSEF Nominee


First Award - Senior Division
Computer Science and Systems Software

Kayley Xu

The Bishop's School
Advisor: D. Cameron

CSEF Nominee

First Award - Senior Division
Earth and Environmental Sciences

The background features a dark blue gradient with intricate, wavy patterns of teal and light blue dots. These dots form a grid that appears to curve and ripple across the frame, creating a sense of depth and movement. The overall aesthetic is modern and scientific.

First Award - Senior Division
Earth and Environmental Sciences

Sarah Gao

Canyon Crest Academy
Advisor: E. Gerstin

CSEF Nominee

First Award - Senior Division
Earth and Environmental Sciences

Max Lau

Westview High School
Advisor: K. Klausling

CSEF Nominee

First Award - Senior Division
Earth and Environmental Sciences

Nathan Qiu

Canyon Crest Academy
Advisor: K. Shakeri

CSEF Nominee

First Award - Senior Division
Earth and Environmental Sciences

Sophie Zeng
Minghui Yao

The Bishop's School
Advisor: M. Jaiclin

CSEF Nominee

First Award - Senior Division
Earth and Environmental Sciences

Lilian Zeng

Del Norte High School
Advisor: H. Xu

CSEF Nominee

First Award - Senior Division
Earth and Environmental Sciences

Emily Zhang

Canyon Crest Academy
Advisor: E. Gerstin


CSEF Nominee

First Award - Senior Division
Earth and Environmental Sciences

Austin Zhang

Del Norte High School
Advisor: S. Li

CSEF Nominee



First Award - Senior Division
Engineering:
Electrical, Mechanical, and Robotics

First Award - Senior Division
Engineering:
Electrical, Mechanical, and Robotics

Alex Battikha

Westview High School
Advisor: J. Silberman

CSEF Nominee

First Award - Senior Division
Engineering:
Electrical, Mechanical, and Robotics

Logan Brown

High Tech High North County
Advisor: C. Sailor

CSEF Nominee

First Award - Senior Division
Engineering:
Electrical, Mechanical, and Robotics

Angelina Kim

The Bishop's School
Advisor: A. Pelletier


CSEF Nominee

First Award - Senior Division
Engineering:
Electrical, Mechanical, and Robotics

Sherwin Salemi

High Tech High North County
Advisor: C. Sailor

CSEF Nominee



First Award - Senior Division
Engineering:
Energy, Materials, and Transport

First Award - Senior Division
Engineering:
Energy, Materials, and Transport

Vassilios Dresios
Demetrios Dresios
Carlsbad High School
Advisor: A. Velentza

CSEF Nominee

First Award - Senior Division
Engineering:
Energy, Materials, and Transport

William Gao

Canyon Crest Academy
Advisor: H. Lee

CSEF Nominee

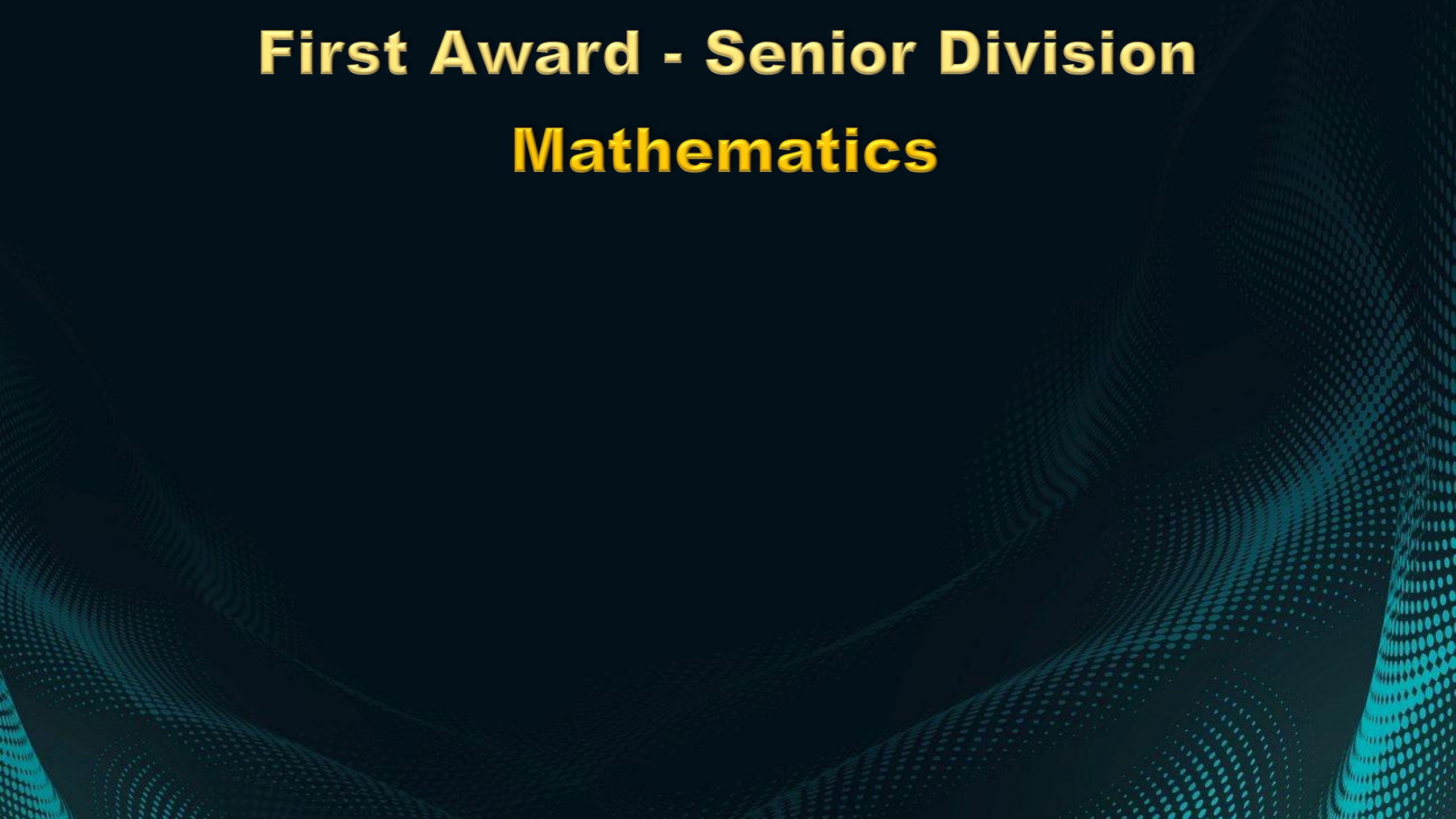
First Award - Senior Division
Engineering:
Energy, Materials, and Transport

Hudson Kim

Westview High School
Advisor: B. Meagher

CSEF Nominee

First Award - Senior Division Mathematics

The background of the slide features a dark teal to black gradient. Overlaid on this are several wavy, undulating lines in a lighter teal color. A prominent feature is a grid of small, light blue dots that follows the curves of these waves, creating a sense of depth and movement. The overall aesthetic is modern and technical.


First Award - Senior Division
Mathematics

Jeonghoo Hyun

Torrey Pines High School
Advisor: J. Newell

CSEF Nominee

First Award - Senior Division
Microbiology

The background features a dark teal to black gradient with intricate, wavy patterns of light blue and teal dots and lines, creating a sense of depth and movement.

First Award - Senior Division
Microbiology

David He

Westview High School
Advisor: S. Halander

CSEF Nominee

First Award - Senior Division
Microbiology

Mason Raymond

Steele Canyon High School
Advisor: S. Weiner

CSEF Nominee

First Award - Senior Division
Physics and Astronomy

The background features a dark teal to black gradient with intricate, wavy patterns of fine lines and a grid of small, light blue dots that create a sense of depth and movement, resembling a digital or scientific visualization.

First Award - Senior Division
Physics and Astronomy

Vikramaditya Chandra

San Marcos High School
Advisor: S. Bireddy

CSEF Nominee

First Award - Senior Division
Physics and Astronomy

Trevor Chen

Westview High School
Advisor: S. Halander

CSEF Nominee

**First Award - Senior Division
Physics and Astronomy**

**Jeremy Feng
Matthew Ni**

**The Bishop's School
Advisor: M. Jaiclin**

CSEF Nominee


First Award - Senior Division
Physics and Astronomy

Nandana Madhukara

Canyon Crest Academy
Advisor: E. Gerstin

CSEF Nominee

First Award - Senior Division
Plant Sciences

The background features a dark teal to black gradient with intricate, wavy patterns of fine lines and a grid of small, light blue dots that create a sense of depth and movement.

First Award - Senior Division
Plant Sciences

Melany Ibarra
Ana Villegas Palacios
Central Union High School
Advisor: L. Rueda

CSEF Nominee

First Award - Senior Division
Plant Sciences

Paulina Iniguez
Victoria Takaki

Bonita Vista High School
Advisor: J. Ekstein

CSEF Nominee

First Award - Senior Division
Plant Sciences

Elvin Zhang

Del Norte High School
Advisor: J. Cheskaty

CSEF Nominee

**Congratulations
to the
First Award Winners**