

# WINNERS

Of the 612 papers submitted to this year's MathWorks Math Modeling Challenge, 113 (18.5%) advanced to the second round of judging, where 37 were selected for awards and recognition (6%).

## SEMI-FINALISTS

Papers from the following six schools underwent in-depth discussion and were deemed of exceptional quality by judges. These teams are recognized as Semi-Finalists and will receive prizes of \$1,500 each.

### F W Buchholz High School

(Team #15916)  
Gainesville, Florida  
Coach: Ziwei Lu

### Northview High School

(Team #15938)  
Sylvania, Ohio  
Coach: John Eckhart

### San Dieguito High School Academy

(Team #15751)  
Encinitas, California  
Coach: Darlene Blanchard

### Livingston High School

(Team #15398)  
Livingston, New Jersey  
Coach: Cheryl Coursen

### Peachtree Ridge High School

(Team #15617)  
Suwanee, Georgia  
Coach: Donna Greenwood

### University High School

(Team #16023)  
Spokane, Washington  
Coach: Scott Cooley

## HONORABLE MENTIONS

Teams representing the following schools are recognized for Honorable Mention distinction. Prizes of \$1,000 will be awarded to each of these 22 teams for noteworthy submissions.

### AMERICAN HERITAGE SCHOOL

PLANTATION, Florida

### CANYON CREST ACADEMY

SAN DIEGO, California

### HIGH TECHNOLOGY HIGH SCHOOL

LINCROFT, New Jersey

### GLOUCESTER HIGH SCHOOL

GLOUCESTER, Massachusetts

### GOV LIVINGSTON HIGH SCHOOL

BERKELEY HTS, New Jersey

### GRAMMAR SCHOOL TRUST

LEICESTER, LEICESTER, England

### HUNTER COLLEGE HIGH SCHOOL

NEW YORK, New York

### JERICHO SENIOR HIGH SCHOOL

JERICHO, New York

### JULIA R MASTERMAN MID HIGH SCHOOL

PHILADELPHIA, Pennsylvania

### MASS ACADEMY-MATH & SCIENCE

WORCESTER, Massachusetts

### MAYFIELD SR SCHOOL OF HOLY CHILD

PASADENA, California

### NEW CENTURY TECH HIGH SCHOOL

HUNTSVILLE, Alabama

### NORTHVIEW HIGH SCHOOL

JOHNS CREEK, Georgia

### NUEVA SCHOOL

HILLSBOROUGH, California

### ST JOHN'S SCHOOL

HOUSTON, Texas

### THOMAS JEFFERSON HS-SCI & TECH ALEXANDRIA, Virginia

### TRINITY PREPARATORY SCHOOL

WINTER PARK, Florida

### WARD MELVILLE SR HIGH SCHOOL

EAST SETAUKET, New York

### WATFORD GRAMMAR SCHOOL FOR BOYS

WATFORD, HERTFORDSHIRE, England\*

### WAYZATA HIGH SCHOOL

PLYMOUTH, Minnesota

### WILLIAM FREMD HIGH SCHOOL

PALATINE, Illinois

### WINDSOR CHARTER ACADEMY MHS

WINDSOR, Colorado

\* top ranking UK team will present their paper

## TOP RANKED TEAM FROM THE UNITED KINGDOM

The top ranked team from the U.K. (Honorable Mention) will present its paper at the final event.

**Watford Grammar School for Boys** (Team #15440), Watford, Hertfordshire, England

Coach: Ben Eastley / Students: James Elcock, Luke Powney, Hasan Shahrestani, Hamish Starling

## TECHNICAL COMPUTING HONORABLE MENTIONS

Teams representing the following schools are recognized for Technical Computing Honorable Mention distinction.

### COLUMBUS NORTH HIGH SCHOOL

Columbus, Indiana

### LIVINGSTON HIGH SCHOOL

Livingston, New Jersey

### LOS ALTOS HIGH SCHOOL

Los Altos, California

## FINALISTS

M3 Challenge Finalist Awards honor teams for the most outstanding mathematical approaches to the problem through modeling, justifying assumptions, describing their process, analyzing effects of change, and summarizing results. The top six teams will present their papers and winners will be announced at the awards ceremony.

### Adlai E. Stevenson High School

(Team #15376), Lincolnshire, Illinois  
Coach: Paul Kim

Students: Jack Chen, Collin Fan, Aadit Juneja, Aayush Kashyap, Nathan Ma

### Adlai E. Stevenson High School

(Team #15413), Lincolnshire, Illinois  
Coach: Paul Kim

Students: Spandan Goel, Andrew Liu, Joy Qu, Greycen Ren, Gabriel Visotsky

### High Technology High School

(Team #15596), Lincroft, New Jersey  
Coach: Raymond Eng

Students: David Chang, Andrew Eng, Kevin Guan, Alexander Postovski, Ivan Wong

### Homestead High School

(Team #15333), Mequon, Wisconsin  
Coach: Weizhong Wang

Students: Adam Garsha, Jacob Schmidman, Eric Wan, Ethan Wang

### New Trier Township High School

(Team #15522), Winnetka, Illinois  
Coach: Bradley Kuklis

Students: Aruni Chenxi, Nika Chuzhoy, Max Hartman, Connor Lane, Nathan Liu

### Pine View School

(Team #15344), Osprey, Florida  
Coach: Mark Mattia

Students: Nolan Boucher, Uday Goyat, John Halcomb, Max Rudin, Lisa Zhang

## TECHNICAL COMPUTING FINALISTS

This year 261 papers were considered for M3 Challenge Technical Computing Awards for outstanding use of programming to analyze, design, and conceive a solution for the problem. The top three teams will present their papers and winners will be announced at the awards ceremony.

### High Technology High School

(Team #15596), Lincroft, New Jersey  
Coach: Raymond Eng

Students: David Chang, Andrew Eng, Kevin Guan, Alexander Postovski, Ivan Wong

### New Century Tech High School

(Team #15559), Huntsville, Alabama  
Coach: Clifford Pate

Students: Ella Duus, Donal Higgins, Alexander Ivan, Shreyas Puducheri

### Pine View School

(Team #15344), Osprey, Florida  
Coach: Mark Mattia

Students: Nolan Boucher, Uday Goyat, John Halcomb, Max Rudin, Lisa Zhang

## PRIZES: \$100,000 OR £75,000

M3 Challenge Champion ..... \$20,000 or £15,000+

M3 Challenge Runner Up ..... \$15,000 or £11,400+

M3 Challenge Third Place ..... \$10,000 or £7,500+

M3 Challenge Finalists (3) ..... \$5,000 or £3,750+ each

M3 Challenge Semi-Finalists (6) ..... \$1,500 or £1,100+ each

M3 Challenge Honorable Mentions (22) ..... \$1,000 or £750+ each

Technical Computing Finalists (3) ..... \$3,000, \$2,000, \$1,000 or £2,250+, £1,500+, £750+

Outstanding Communication of Results ..... \$500 or £375+ each

Finalist Team Coaches (6) ..... \$500 or £375+ each

#### ABOUT M3 CHALLENGE

MathWorks Math Modeling Challenge (M3 Challenge) is the prestigious Internet-based competition known for providing a pinnacle high school experience to inspire students to pursue STEM majors and careers. The contest, organized by Society for Industrial and Applied Mathematics (SIAM) and sponsored by leading software developer MathWorks, is free and open to students in the U.S. and U.K. M3 Challenge will award top teams this year with \$100,000+ or £75,000+ in scholarships to use for their higher education. M3 Challenge has awarded more than \$1.65 million in scholarships to date.

Each school may enter up to two teams of three to five junior/senior or sixth form students, who spend up to 14 hours on Challenge weekend devising and submitting a solution to the Challenge Problem, which is not revealed to them until they log in. Following a rigorous multi-stage judging process, six finalist teams, three technical computing awardees, and top ranking UK teams present their findings live to a final judge panel to determine the final rank order. Learn more at [m3challenge.siam.org](http://m3challenge.siam.org).

#### ABOUT MATHWORKS

MathWorks is the leading developer of mathematical computing software. MATLAB, the language of engineers and scientists, is a programming environment for algorithm development, data analysis, visualization, and numeric computation. Simulink is a block diagram environment for simulation and Model-Based Design of multidomain and embedded engineering systems. Engineers and scientists worldwide rely on these products to accelerate the pace of discovery, innovation, and development in automotive, aerospace, communications, electronics, industrial automation, and other industries. MATLAB and Simulink are also fundamental teaching and research tools in the world's universities and learning institutions. Founded in 1984, MathWorks employs more than 5,000 people in 16 countries, with headquarters in Natick, Massachusetts, U.S. For additional information, visit [mathworks.com](http://mathworks.com).

#### ABOUT SIAM

Society for Industrial and Applied Mathematics (SIAM), headquartered in Philadelphia, Pennsylvania, is an international society of more than 14,000 individual, academic and corporate members from 100+ countries. SIAM helps build cooperation between mathematics and the worlds of science and technology to solve real-world problems through publications, conferences, and communities like chapters, sections, and activity groups. Learn more at [siam.org](http://siam.org).

#### ABOUT JANE STREET

Jane Street is a global quantitative trading firm hiring smart, humble people who love to learn. Find out more at [janestreet.com](http://janestreet.com).

#### AWARDS AND RECOGNITION

ASAE Associations Advance America (AAA) Award of Excellence  
Committee Encouraging Corporate Philanthropy (CECP) Excellence Award

The National Association of Secondary School Principals has placed M3 Challenge on the NASSP National Advisory List of Student Contests and Activities since 2010



[M3Challenge.siam.org](http://M3Challenge.siam.org)

**Final Event: April 25, 2022**

## PROGRAM

#### WELCOME BREAKFAST

- 8:00 *Opening Remarks*  
Michelle Montgomery, M3 Challenge Program Director, SIAM  
Dr. Chris Musco, New York University, M3 Challenge Director of Technical Computing Judging

#### TEAM PRESENTATIONS

- 8:45 **ADLAI E STEVENSON HIGH SCHOOL**  
Team #15413
- 9:10 **NEW TRIER TOWNSHIP HIGH SCHOOL**  
Team #15522
- 9:35 **HOMESTEAD HIGH SCHOOL**  
Team #15333
- 10:00 **WATFORD GRAMMAR SCHOOL FOR BOYS**  
Team #15440
- 10:25 *10-minute Break*
- 10:35 **ADLAI E STEVENSON HIGH SCHOOL**  
Team #15376
- 11:00 **PINE VIEW SCHOOL**  
Team #15344
- 11:25 **NEW CENTURY TECH HIGH SCHOOL**  
Team #15559
- 11:50 **HIGH TECHNOLOGY HIGH SCHOOL**  
Team #15596

#### LUNCH

- 12:15 *Jane Street Welcome*  
Sandor Lehoczky

#### HOST PRESENTATION

- 1:15 *Jane Street Panel*  
Kristen Chang, moderator

#### AWARDS CEREMONY AND RECEPTION

- 2:00 *"Best of" video: 2022 M3 Challenge experience*  
*Remarks*  
Dr. Katie Kavanagh, Clarkson University, SIAM VP for Education  
*Outstanding Communication of Results and Technical Computing Scholarship Prizes*  
Tanya Kuruvilla, MathWorks  
*M3 Challenge Team Prizes*  
Dr. Karen Bliss, Virginia Military Institute  
*Team Photos*
- 3:15 Meet at Marriott for transport to airport/trains/vans

