



# MathWorks Math Modeling Challenge

A program of **siam**.

## Final Event: April 29, 2024

### PROGRAM

7:30 Arrive at Jane Street; all-team photo on terrace

#### WELCOME BREAKFAST

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

#### TEAM PRESENTATIONS

8:45 **York Community High School**  
Team #17932

9:10 **F W Buchholz High School**  
Team #17497  
(Technical Computing)

9:35 **Livingston High School**  
Team #17400

10:00 **Blake School - Northrop Campus**  
Team #17570  
(Technical Computing)

10:25 **Watford Grammar School for Boys**  
Team #17870  
(Technical Computing)

10:50 *10-minute Break*

11:00 **Phillips Academy Andover**  
Team #17645

11:25 **Canyon Crest Academy**  
Team #17895

11:50 **Thomas Jefferson High School  
for Science & Technology**  
Team #17432

12:15 **The Pingry School**  
Team #17773

#### LUNCH

12:40 *Congratulations!*  
Michael Vronsky, Trader, Jane Street

#### HOST PRESENTATION

1:30 *Jane Street Panel*  
Jane Street recruiter, moderator

#### AWARD CEREMONY AND RECEPTION

2:30 *"Best of" video: M3 Challenge 2024 Experience*

*Master of Ceremonies*

Dr. Karen Bliss, Senior Manager of Education and Outreach, SIAM

*Remarks*

Dr. Suzanne Weekes, Chief Executive Officer, SIAM

*Outstanding Communication of Results and  
Technical Computing Scholarship Prizes*

Tanya Kuruvilla, MathWorks

*M3 Challenge Team Prizes*

3:00– Team Photos and Jane Street Tours (optional)

4:00

3:30– Meet at Marriott for transport to airport/trains/vans

4:30

A program of



Society for Industrial and Applied Mathematics



**Host:**  
**Jane Street**  
**250 Vesey Street**  
**New York, New York 10281**

# WINNERS

Of the 655 papers submitted to this year's MathWorks Math Modeling Challenge, 128 (20%) advanced to the second round of judging, where 37 were selected for awards and recognition (6%).

## 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 award ceremony.

### Canyon Crest Academy

(Team #17895), San Diego, California  
Coach: Brian Shay  
Students: Michelle Liang, Evan Luo, Larry Wu, Jonathan Xue, Stephen Zhu

### Livingston High School

(Team #17400), Livingston, New Jersey  
Coach: Cheryl Coursen  
Students: Harsh Akunuri, Olivia Mei, Timothy Wu, Nathan Zhang, Kevin Zhang

### Phillips Academy Andover

(Team #17645), Andover, Massachusetts  
Coach: Heidi Wall  
Students: Tianyi Evans Gu, Yifan Kang, Eric Wang, Anthony Yang, Angeline Zhao

### The Pingry School

(Team #17773), Basking Ridge, New Jersey  
Coach: Bradford Poprik  
Students: Elbert Ho, Laura Liu, Annabelle Shilling, Evan Xie, Alan Zhong

### Thomas Jefferson High School for Science & Technology

(Team #17432), Alexandria, Virginia  
Coach: Sewon Yang  
Students: Rishabh Chhabra, Om Gole, Rishabh Prabhu, Laura Zhang, Victoria Zhang

### York Community High School

(Team #17932), Elmhurst, Illinois  
Coach: Ella Sak  
Students: Nick Cifelli, Timothy Flisk, Jeffrey Lu, Taylor Melind, Steven Piotrowski

## TECHNICAL COMPUTING FINALISTS

This year 302 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 award ceremony.

### Blake School - Northrop Campus

(Team #17570), Minneapolis, Minnesota  
Coach: Christin Winkler  
Students: Karn Kaura, Alex Wu, Curtis Ying

### F W Buchholz High School

(Team #17497), Gainesville, Florida  
Coach: Ziwei Lu  
Students: Melissa Li, Sophia Rong, Nathan Wei, Andrew Xing, Luke Xue

### Watford Grammar School for Boys

(Team #17870), Hertfordshire, England  
Coach: Yachna Tailor  
Students: Dominic De Jonge, Meyer Louka, Neil Nair, Jakub Skop, Kshitij Tyagi

## 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

# WINNERS

Of the 655 papers submitted to this year's MathWorks Math Modeling Challenge, 128 (20%) 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.

### Blake School - Northrop Campus

(Team #17570), Minneapolis, Minnesota  
Coach: Christin Winkler  
Students: Karn Kaura, Alex Wu, Curtis Ying

### Downingtown STEM Academy

(Team #17868), Downingtown, Pennsylvania  
Coach: Ryan Dobson  
Students: Saptak Das, Soham Katdare, Neel Kumar

### Eltham College

(Team #17699), London, England  
Coach: Benjamin Eastley  
Students: Rohan Apte, Oles Chaban, Atharv Gupta, Alice Sanderson, Ethan Southward

### Haberdashers' Boys' School

(Team #17996), Borehamwood, Hertfordshire, England  
Coach: Kim Harrison  
Students: Dawei Tao, Devarshi Mandal, Rajarshi Mandal, Aryan Prabhudesai, Oliver West

### High Technology High School

(Team #17651), Lincroft, New Jersey  
Coach: Raymond Eng  
Students: Jasmine Guo, Abhinav Kartik, Harrison Mesh, Logan Mesh, Derek Wang

### Mercer County

(Team #18073), Princeton, New Jersey  
Coach: Li Bai  
Students: Christopher Bai, Adrien Cristian, Patrick Ming, Josh Patel, Rishi Shah

## 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.

### ADLAI E STEVENSON HIGH SCHOOL

Lincolnshire, Illinois

### AMERICAN HERITAGE SCHOOL

Plantation, Florida

### CONESTOGA HIGH SCHOOL

Berwyn, Pennsylvania

### EAST BRUNSWICK HIGH SCHOOL

E Brunswick, New Jersey

### FW BUCHHOLZ HIGH SCHOOL

Gainesville, Florida

### HARROGATE GRAMMAR SCHOOL

Harrogate, North Yorkshire, England

### LEANDER HIGH SCHOOL

Leander, Texas

### LYNBROOK HIGH SCHOOL

San Jose, California

### MIAMI PALMETTO SR HIGH SCHOOL

Pinecrest, Florida

### MIT PRIMES

Foxboro, Massachusetts

### MONTGOMERY BLAIR HIGH SCHOOL

Silver Spring, Maryland

### NEEDHAM HIGH SCHOOL

Needham Heights, Massachusetts

### NILES NORTH HIGH SCHOOL

Skokie, Illinois

### NORTH ALLEGHENY SR HIGH SCHOOL

Wexford, Pennsylvania

### ROUND ROCK HIGH SCHOOL

Round Rock, Texas

### ST JOHN'S SCHOOL

Houston, Texas

### THE JUDD SCHOOL

Tonbridge, Kent, England

### WATFORD GRAMMAR SCHOOL FOR BOYS

Watford, Hertfordshire, England

### WAUBONSIE VALLEY HIGH SCHOOL

Aurora, Illinois

### WILLIAM FREMD HIGH SCHOOL

Palatine, Illinois

### WILLIAMSTON HIGH SCHOOL

Williamston, Michigan

### WINCHESTER COLLEGE

Winchester, Hampshire, England

## TECHNICAL COMPUTING HONORABLE MENTIONS

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


### ADLAI E STEVENSON HIGH SCHOOL

Lincolnshire, Illinois

### LEHIGH VALLEY MATH TEAM

Bethlehem, Pennsylvania

# MathWorks Math Modeling Challenge

A program of  SIAM.

## ABOUT M3 CHALLENGE

MathWorks Math Modeling Challenge (M3 Challenge) is the prestigious Internet-based competition known for providing a transformative 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., England, and Wales. 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 \$1.85 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 and three technical computing awardees 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 6,000 people in 34 offices around the world, with headquarters in Natick, Massachusetts, U.S. For additional information, visit [mathworks.com](http://mathworks.com).

## ABOUT SOCIETY FOR INDUSTRIAL AND APPLIED MATHEMATICS

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 quantitative trading firm with offices worldwide. We hire smart, humble people who love to solve problems, build systems, and test theories. Will our next great idea come from you? Learn more at [janestreet.com](http://janestreet.com).

[m3challenge.siam.org](http://m3challenge.siam.org)

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