



William Lowell  
**PUTNAM**  
Mathematical Competition

## ANNOUNCEMENT OF WINNERS

of the seventy-ninth competition held on December 1, 2018

### WINNING TEAMS

Rank	School	Team Members (in alphabetical order)
1	HARVARD UNIVERSITY	Dongryul Kim, Shyam Narayanan, David Stoner
2	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	Junyao Peng, Ashwin Sah, Yunkun Zhou
3	UNIVERSITY OF CALIFORNIA, LOS ANGELES	Ciprian Mircea Bonciocat, Xiaoyu Huang, Konstantin Miagkov
4	COLUMBIA UNIVERSITY	Quang Dao, Myeonhu Kim, Matthew Lerner-Brecher
5	STANFORD UNIVERSITY	David Kewei Lin, Hanzhi Zheng, Yifan Zhu

The institution with the first-place team receives an award of \$25,000, and each member of the team receives \$1,000. The awards for second place are \$20,000 and \$800; for third place, \$15,000 and \$600; for fourth place, \$10,000 and \$400; and for fifth place, \$5,000 and \$200.

In each of the following categories, the listing is in alphabetical order.

### THE PUTNAM FELLOWS – THE FIVE HIGHEST RANKING INDIVIDUALS

Each receives an award of \$2,500.

DONGRYUL KIM	Harvard University
SHYAM NARAYANAN	Harvard University
DAVID STONER	Harvard University
YUAN YAO	Massachusetts Institute of Technology
SHENGTONG ZHANG	Massachusetts Institute of Technology

### THE NEXT TEN HIGHEST RANKING INDIVIDUALS

Each receives an award of \$1,000.

MURILO CORATO ZANARELLA	Princeton University
JIYANG GAO	Massachusetts Institute of Technology
ANDREW GU	Massachusetts Institute of Technology
JAMES LIN	Massachusetts Institute of Technology
MICHAEL MA	Massachusetts Institute of Technology
ASHWIN SAH	Massachusetts Institute of Technology
KEVIN SUN	Massachusetts Institute of Technology
DANIELLE WANG	Massachusetts Institute of Technology
HUNG-HSUN YU	Massachusetts Institute of Technology
YUNKUN ZHOU	Massachusetts Institute of Technology

## THE WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION

### ELIZABETH LOWELL PUTNAM PRIZE

The winner receives an award of \$1,000.

DANIELLE WANG

Massachusetts Institute of Technology

### THE NEXT TWELVE HIGHEST RANKING INDIVIDUALS

Each receives an award of \$250.

ANKAN BHATTACHARYA

Ohio State University

XIAOYU HUANG

University of California, Los Angeles

RAY LI

University of California, Berkeley

ALLEN LIU

Massachusetts Institute of Technology

JUNYAO PENG

Massachusetts Institute of Technology

BRIAN REINHART

Massachusetts Institute of Technology

MICHAEL REN

Massachusetts Institute of Technology

DILHAN SALGADO

Carnegie Mellon University

MIHIR SINGHAL

Massachusetts Institute of Technology

ZHUO QUN SONG

Princeton University

ZHUOFAN XIE

Massachusetts Institute of Technology

KAIQI ZHU

University of California, Los Angeles

### HONORABLE MENTION – INDIVIDUALS

OSMAN AKAR, University of California, Los Angeles

MYEONHU KIM, Columbia University

RAUL ALCANTARA, Massachusetts Institute of Technology

ZACK LEE, Carnegie Mellon University

ADAM BUSIS, Harvey Mudd College

GIDEON LEEPER, California Institute of Technology

DALAI CHADRAA, University of Washington, Seattle

YUAN LIAO, Boston University

HONGYI CHEN, University of Colorado, Boulder

ANDREW LIN, Massachusetts Institute of Technology

ZACHARY CHROMAN, Massachusetts Institute of Technology

DHRUV MEDARAMETLA, Stanford University

MATTHEW CRAVEN, Florida Institute of Technology

LINGJIE MEI, Massachusetts Institute of Technology

QUANG DAO, Columbia University

ERIK METZ, University of Maryland, College Park

JEFFREY DAWSON, University of British Columbia

KONSTANTIN MIAGKOV, University of California, Los Angeles

KAAN DOKMECI, Massachusetts Institute of Technology

JEET MOHAPATRA, Massachusetts Institute of Technology

JUNHAO FAN, University of California, Berkeley

ESHAAN NICHANI, Massachusetts Institute of Technology

SWAPNIL GARG, Massachusetts Institute of Technology

OTTO OSTERMAN, University of Texas at Dallas

KYLE GETTIG, University of Florida

ADVAIT PARULEKAR, Texas A&M University

ALBERT GEVORGYAN, University of Waterloo

FEI PENG, Carnegie Mellon University

ANDREW HE, Massachusetts Institute of Technology

EDWIN PENG, Carnegie Mellon University

EDWARD HOU, Carnegie Mellon University

KHANH PHAM, University of Chicago

CALVIN HSU, Massachusetts Institute of Technology

SARANESH PREMBABU, Massachusetts Institute of Technology

BRICE HUANG, Massachusetts Institute of Technology

QI QI, Massachusetts Institute of Technology

YAN HUANG, Princeton University

SEYOON RAGAVAN, Princeton University

JEFFREY HUANG, University of Texas at Austin

NIKHIL REDDY, Massachusetts Institute of Technology

CALEB JI, Washington University

SAMUEL REINEHR, Colorado School of Mines

CODY JOHNSON, Carnegie Mellon University

QIUYU REN, Massachusetts Institute of Technology

AKSHAJ KADAVERU, Massachusetts Institute of Technology

KEVIN REN, Massachusetts Institute of Technology

RICHARD KANG, University of Waterloo

PEDRO SACRAMENTO OLIVEIRA, University of Pennsylvania

ALEXANDER KATZ, Massachusetts Institute of Technology

SIVAKORN SANGUANMOO, University of Wisconsin, Madison

## **THE WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION**

GIAN CORDANA SANJAYA, University of Waterloo  
MAYA SANKAR, Massachusetts Institute of Technology  
MEHTAAB SAWHNEY, Massachusetts Institute of Technology  
CHRISTOPHER SHAO, Massachusetts Institute of Technology  
JOSHUA SPECKMAN, University of Southern California  
KAI SUN, University of Waterloo  
SIAH YONG TAN, Stanford University  
MICHAEL TANG, Massachusetts Institute of Technology  
DRAKE THOMAS, University of Minnesota, Twin Cities  
ANTON TRYGUB, Massachusetts Institute of Technology  
IOAN VLADIMIR VINTU, Colorado College  
RUNZE WANG, Swarthmore College

WILLIAM WANG, University of Pennsylvania  
JIANQIAO XIA, Massachusetts Institute of Technology  
YINZHAN XU, Massachusetts Institute of Technology  
CHRIS XU, Massachusetts Institute of Technology  
RICHARD XU, Harvard University  
ALLEN YANG, Massachusetts Institute of Technology  
JIT WU YAP, University of Michigan, Ann Arbor  
RICHARD YI, Massachusetts Institute of Technology  
ZHENYUAN ZHANG, University of Waterloo  
HANZHI ZHENG, Stanford University  
YIFAN ZHU, Stanford University  
SIYE ZHU, Harvard University

### **HONORABLE MENTION – TEAMS**

Listed by university in alphabetical order.

HARVEY MUDD COLLEGE  
UNIVERSITY OF BRITISH COLUMBIA  
UNIVERSITY OF CALIFORNIA, BERKELEY  
UNIVERSITY OF MARYLAND, COLLEGE PARK  
UNIVERSITY OF WATERLOO

Shyan Akmal, Adam Busis, Xuming Liang  
Jeffrey Dawson, Sina Saleh, Heng Xia  
Junhao Fan, Ray Li, Jonathan Xia  
Aaron George, Erik Metz, Pratik Rathore  
Albert Gevorgyan, Anzo Teh, Fengyang Wang

### **THE WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION WAS PREPARED BY:**

DANIEL ULLMAN, George Washington University – Director of the Competition  
MARK KRUSEMEYER, Carleton College – Associate Director of the Competition  
HARM DERKSEN, University of Michigan – Chair of the Problems Committee  
IOANA DUMITRIU, University of Washington – Member of the Problems Committee  
ROBIN PEMANTLE, University of Pennsylvania – Member of the Problems Committee

## THE WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION

### Score–Rank Correspondence

Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank
114	1.5	82	19	68	50	53	114	39	239	25	447.5	11	1055.5
109	3.5	81	20	67	51.5	52	120	38	251.5	24	467.5	10	1157
100	5	80	21	66	55	51	127	37	263.5	23	495.5	9	1235
99	6	79	23	65	59	50	133.5	36	272.5	22	532.5	8	1275
97	7	78	26	64	62	49	145.5	35	281	21	572	7	1309.5
94	8	77	29	62	65.5	48	158.5	34	290.5	20	619	6	1353.5
93	9	76	31	61	70.5	47	167	33	307	19	656.5	5	1437.5
91	10	75	32	60	77	46	172.5	32	331.5	18	681	4	1576.5
89	11.5	74	33	59	82	45	176.5	31	352.5	17	708	3	1805
88	13.5	73	34.5	58	87	44	180.5	30	377	16	733	2	2182.5
87	15	72	36.5	57	93	43	185.5	29	400.5	15	760.5	1	2720
86	16	71	39	56	98.5	42	193	28	414	14	804.5	0	3824
84	17	70	42	55	104	41	206.5	27	424.5	13	866.5		
83	18	69	46.5	54	110	40	224	26	433	12	956		

### Frequency Distribution of Problem Scores of the Top 477 Contestants

Score	A1	A2	A3	A4	A5	A6	B1	B2	B3	B4	B5	B6
<b>10</b>	318	103	104	25	10	31	269	261	228	49	20	43
<b>9</b>	36	12	69	8	5	7	14	34	24	59	2	0
<b>8</b>	56	43	35	6	3	2	52	10	30	34	0	0
<b>7</b>	6	0	7	1	0	0	15	0	3	9	0	0
<b>6</b>	0	18	0	0	0	0	0	0	0	4	0	0
<b>5</b>	4	0	1	0	0	0	0	0	2	0	0	0
<b>4</b>	0	0	0	0	0	0	0	0	0	1	0	0
<b>3</b>	13	0	0	0	0	0	37	0	0	0	0	0
<b>2</b>	25	34	57	2	12	2	70	30	100	20	4	2
<b>1</b>	7	55	16	9	120	11	2	8	48	11	2	6
<b>0</b>	11	143	129	191	136	176	12	81	16	138	166	158
<b>NA</b>	1	69	59	235	191	248	6	52	26	152	283	268

THE WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION

**Students Ranked 1–193**

Listed by university in alphabetical order.

**Boston University, Boston, MA**

Yuan Liao

Yuxuan Zhang

**Brigham Young University, Provo, UT**

Gradin Anderson

**California Institute of Technology, Pasadena, CA**

August Chen

Jing Ding

Zachary Chase

Gideon Leeper

Lazar Ilic

Haoxuan Chen

Yanke Song

**Carnegie Mellon University, Pittsburgh, PA**

Cody Johnson

Fei Peng

Yiwei Lyu

Dilhan Salgado

Junghwan Min

Yucheng Dai

Edward Hou

Maxwell Aires

Yuheng Guo

Edwin Peng

Mikhail Ivkov

Zack Lee

Eugene Lee

Omar Alrabiah

Evan Fang

Philip Lamkin

**Colorado College, Colorado Springs, CO**

Ioan Vladimir Vintu

**Colorado School of Mines, Golden, CO**

Samuel Reinehr

**Columbia University, New York City, NY**

Matthew Lerner Brecher

Myeonhu Kim

Quang Dao

**Cornell University, Ithaca, NY**

Qingxuan Jiang

**Florida Institute of Technology, Melbourne, FL**

Feng Gui Junghyun Hwang

# THE WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION

## Florida State University, Tallahassee, FL

Graham O'Donnell

## Harvard University, Cambridge, MA

Avi Swartz

Franklyn Wang

Richard Xu

David Stoner

Jacob Klegar

Shyam Narayanan

Dongryul Kim

Mark Kong

Siye Zhu

Fabio Pruneri

Matthew Hase Liu

## Harvey Mudd College, Claremont, CA

Adam Busis

Shyan Akmal

Xuming Liang

Mengyi Shan

## Massachusetts Institute of Technology, Cambridge, MA

Akshaj Kadaveru

Farrell Eldrian Wu

Mihir Singhal

Aleksandre Saatashvili

Gabriel Mintzer

Nikhil Reddy

Alexander Gu

Hung-Hsun Yu

Patrick Wang

Alexander Katz

James Lin

Peter Rowley

Allen Liu

Jason Lu

Qi Qi

Allen Yang

Jeet Mohapatra

Qiuyu Ren

Andrew Gu

Jeremy Mcculloch

Rachel Zhang

Andrew He

Jianqiao Xia

Rahul Yesantharao

Andrew Lin

Jiyang Gao

Raul Alcantara

Anton Trygub

John Wu

Richard Yi

Aruzhan Amanbayeva

Joshua Lee

Ruidi Cao

Ashwin Sah

Junyao Peng

Saranesh Prembabu

Brian Reinhart

Kaan Dokmeci

Shengtong Zhang

Brice Huang

Kevin Ren

Srijon Mukherjee

Calvin Hsu

Kevin Sun

Swapnil Garg

Calvin Lee

Kritkorn Karntikoon

Yinzhan Xu

Chris Xu

Lingjie Mei

Yuan Yao

Christopher Shao

Maya Sankar

Yunkun Zhou

Daniel Liu

Mehtaab Sawhney

Yuqing Xie

Danielle Wang

Michael Ma

Zachary Chroman

Edwin Song

Michael Ren

Zhuofan Xie

Eshaan Nichani

Michael Tang

# THE WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION

## **Miami University, Oxford, OH**

Robert Krueger

## **Michigan State University, East Lansing, MI**

Mohit Bansil

## **Ohio State University, Columbus, OH**

Ankan Bhattacharya

## **Princeton University, Princeton, NJ**

Aleco Leng

Kapil Chandran

Murilo Corato Zanarella

Atanas Dinev

Marko Medvedev

Seyoon Ragavan

Byron Chin

Matthew Tyler

Yan Huang

Eric Neyman

Michael Gintz

Zhuo Qun Song

Joao Vargas

Miles Lee

## **Rensselaer Polytechnic Institute, Troy, NY**

Paween Pitimanaaree

## **St. Olaf College, Northfield, MN**

Jakob Hofstad

## **Stanford University, Stanford, CA**

David Kewei Lin

Hanzhi Zheng

Siah Yong Tan

Dhruv Medarametla

Jae Hee Lee

Yifan Zhu

## **Swarthmore College, Swarthmore, PA**

Runze Wang

## **Syracuse University, Syracuse, NY**

Xuerui Yang

## **Texas A&M University, College Station, TX**

Advait Parulekar

Matthew Kroesche

## **University of British Columbia Vancouver, Vancouver, BC, Canada**

Heng Xia

Jeffrey Dawson

## **University of California, Berkeley, Berkeley, CA**

Jiannan Jiang

Junhao Fan

Ray Li

**THE WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION**

**University of California, Los Angeles, Los Angeles, CA**

Ciprian Mircea Bonciocat	Konstantin Miagkov	Xiaoyu Huang
Justin Li	Minghao Pan	
Kaiqi Zhu	Osman Akar	

**University of California, San Diego, San Diego, CA**

Tianyao Xu

**University of Chicago, Chicago, IL**

Khanh Pham	Vijay Srinivasan
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**University of Colorado, Boulder, Boulder, CO**

Hongyi Chen

**University of Florida, Gainesville, FL**

Kyle Gettig

**University of Illinois at Urbana-Champaign, Champaign, IL**

Ziyi Chen

**University of Maryland, College Park, College Park, MD**

Aaron George	Joshua Fernandes	Pratik Rathore
Erik Metz		

**University of Michigan, Ann Arbor, Ann Arbor, MI**

Jit Wu Yap

**University of Minnesota, Twin Cities, Minneapolis, MN**

Drake Thomas	Utkarsh Koshti
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**University of Pennsylvania, Philadelphia, PA**

Pedro Sacramento Oliveira	William Wang
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**University of Rochester, Rochester, NY**

Phuc Lam	Zachary Polansky
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**University of Southern California, Los Angeles, CA**

Joshua Speckman

**University of Texas at Austin, Austin, TX**

Jeffrey Huang	Yifan Jiang
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**THE WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION**

**University of Texas at Dallas, Richardson, TX**

Otto Osterman

**University of Toronto, Toronto, ON, Canada**

Andrey Khesin

Dmitry Paramonov

Samuel Li

**University of Washington, Seattle, WA**

Bodrol Olonbaatar

Dalai Chadraa

Thomas Browning

**University of Waterloo, Waterloo, ON, Canada**

Albert Gevorgyan

Jason Yuen

Richard Kang

Anzo Teh

Kai Sun

Zhenyuan Zhang

Gian Cordana Sanjaya

Michael Pang

**University of Wisconsin, Madison, Madison, WI**

Chenghui Li

Liwei Jiang

Sivakorn Sanguanmoo

**Washington University in St. Louis, University City, St. Louis, MO**

Caleb Ji

Joseph Walegir

**Yale University, New Haven, CT**

Daniel Gershenson

Joshua Hinman

Yuxuan Ke

THE WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION

**Students Ranked 206–495.5**

Listed by university in alphabetical order.

**Arizona State University, Tempe, AZ**

Liam Lawson

**Bard College at Simon's Rock, Great Barrington, MA**

Yonghao Yu

**Bob Jones University, Greenville, SC**

Erick Ross

**Brigham Young University, Provo, UT**

Erik Parkinson

Jonathan Hales

Thomas Draper

**Brown University, Providence, RI**

George Spahn

Nikolai Illarionov

Timothy Sudijono

**California Institute of Technology, Pasadena, CA**

Andrew Bai

Erich Liang

Michael Seaman

Daniel Zhou

Mayank Pandey

Vinayak Kumar

**Carleton College, Northfield, MN**

Trevor Flash Thompson

**Carnegie Mellon University, Pittsburgh, PA**

Albert Lu

Isaac Browne

Weihan Li

Albert Xu

Jianming Wang

Wenze Shi

Brandon Jiang

Joshua Abrams

William Liu

Chittesh Thavamani

Jung Joo Suh

Xiaorong Zhang

David Altizio

Keerthana Gurushankar

Xiruo Zhang

Garrett Brothers

Liam Thomas

Yang Yang

Geyang Qin

Matthew Shi

Yuepeng Yang

Gunmay Handa

Ramgopal Venkateswaran

Zachary Sussman

Hang Liao

Ruoyuan Liu

Zhiyang He

Hongyi Zhou

Tudor Popescu

Zimu Xiang

# THE WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION

## Case Western Reserve University, Cleveland, OH

Benjamin Cheung

## City College of New York, New York City, NY

Nicolas Naing

## Clemson University, Clemson, SC

Robert Melville

## Columbia University, New York City, NY

Anton Wu

Lori Leu

Ruiqi Zhong

Junhui Zhang

## Cornell University, Ithaca, NY

Aaron Lou

Jiazhen Tan

Sofya Bykova

Alexander Xue

Leo Huang

Zhicheng Wang

Aryeh Krischer

Linchen Ahang

## Dartmouth College, Hanover, NH

Raymond Chen

## Duke University, Durham, NC

Alexandru Damian

Junghyun Hwang

Steven Li

Jerry Liu

Shicheng Rao

## Emory University, Atlanta, GA

Tao Zhou

## Florida Atlantic University, Boca Raton, FL

Logan Dymond

## Florida International University, Miami, FL

Fatima Afzali

## Foothill College, Los Altos Hills, CA

Raiymbek Akshulakov

# THE WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION

## George Mason University, Fairfax, VA

Julian Benali

## Georgia Institute of Technology, Atlanta, GA

Nathan Soedjak

Timothy Giesecking

Xiaoqi Peng

Shyamal Patel

## Grinnell College, Grinnell, IA

Jonathan Sadun

## Harvard University, Cambridge, MA

Arav Karighattam

Raluca Vlad

Vincent Pan

Elbert Du

Stefan Spataru

William Zhang

Eric Bornstein

Vaughan Mcdonald

## Harvey Mudd College, Claremont, CA

Christopher Mcelroy

Jacob Cordeiro

Richard Shapley

Jacky Lee

Jordan Haack

Steven Litvack-Winkler

## Haverford College, Haverford, PA

Aaron Kriegman

Joao Pedro Mello De Carvalho

## Iowa State University, Ames, IA

Ben Frankel

## Johns Hopkins University, Baltimore, MD

Brian Wen

Kyle Gatesman

Tanuj Alapati

Daniel Chu

Nathan Vallapureddy

## Lake Forest College, Lake Forest, IL

Niam Abeysiriwardena

## Lehigh University, Bethlehem, PA

Chesphongphach Buranasilp

Suchakree Chueluecha

## THE WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION

### Massachusetts Institute of Technology, Cambridge, MA

Aayush Gupta	Jeffery Yu	Peter Mizes
Agustin Garcia	Jiaxin Zhang	Sathwik Karnik
Alan Peng	Joshua Yoon	Scott Becker
Anders Olsen	Julian Wellman	Shreyas Balaji
Anna Ellison	Jung Soo Chu	Sujay Kazi
Ashwath Thirumalai	Katherine Cheng	Sushrutha Reddy
Calvin Yost Wolff	Kevin Yang	Ting Chun Lin
Daniel Barnett	Lillian Zhang	Varkey Alumootil
Daniel Wang	Matthew Ellison	Yiran Cai
Dhruv Rohatgi	Max Murin	Yogeshwar Velingker
Fan Ye	Maxwell Fishelson	Zachary Farr
Faraz Masroor	Meghal Gupta	Zachary Obsniuk
Haimoshri Das	Michael Kural	
Handong Wang	Michelle Shen	

### Michigan State University, East Lansing, MI

Luken Wiljanen	Neel Modi
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### New York University, New York City, NY

Aadil Bhore	Daniil Glukhovskiy	Tatiana Ezubova
Anh Le Xuan Mai	Hongkangp Yang	

### Northeastern University, Boston, MA

Alon Duvall	Benjamin Quiring
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### Northwestern University, Evanston, IL

Aidan Perreault	Fiona Brady
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### Oberlin College, Oberlin, OH

Liam Axon

### Ohio State University, Columbus, OH

Rushil Raghavan

### Pennsylvania State University, State College, PA

Kedar Karhadkar

## THE WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION

### Princeton University, Princeton, NJ

Alice Lin	Jackson Blitz	Stefan Tudose
Andrei Graur	Jacob Wachspress	Tristan Pollner
David Fitzpatrick	Kai Zheng	Victoria Talvola
Gary Hu	Nathan Bergman	Xiaorun Wu
George Bentley	Patrick Hompe	Yang Song
Igor Medvedev	Samuel Mathers	

### Purdue University, West Lafayette, IN

Nathan Hu

### Purdue University Fort Wayne, Fort Wayne, IN

Giang Le

### Queen's University, Kingston, ON, Canada

Riley Becker

### Rice University, Houston, TX

Mark Helman	Mark Saving	Shaquille Wyan Que
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### Rose-Hulman Institute of Technology, Terre Haute, IN

Bochuan Lyu	Jiasheng Hu
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### Rutgers University, Piscataway, NJ

Steve Hsu

### Stanford University, Stanford, CA

Andrew Chen	Ian Ruohoniemi	Sam Redmond
Andrew Lin	Nina Zubrilina	Tai Vu
Ben Heller	Pengda Liu	Wanqi Zhu
Chady Ben Hamida	Phil Chen	Yelena Mandelshtam
Emily Wen	Prasanna Ramakrishnan	Young Han Kim

### Stony Brook University, Stony Brook, NY

Maciej Wlodek

### Swarthmore College, Swarthmore, PA

Zhicheng Fan

# THE WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION

## University at Buffalo, Buffalo, NY

Matthew Eichhorn

## University of British Columbia, Vancouver, BC, Canada

Brandon Zhang

Sina Saleh

Victor Wang

## University of California, Berkeley, Berkeley, CA

Allen Shen

Jonathan Xia

Yanlai Yang

Alvin Kao

Nathan Kenshur

Yuanning Zhang

Eunice Sukarto

Nikhil Sahoo

James Leng

Reid Johnson

## University of California, Los Angeles, Los Angeles, CA

Alexandru Pascadi

Jacob Zhang

Yan Tao

Bryan Hu

Ken Willyard

## University of California, San Diego, La Jolla, CA

Shuangquan Feng

Tianyi Yu

Tomas Choi

## University of California, Santa Barbara, Santa Barbara, CA

Alex Xu

Yewen Sun

## University of Chicago, Chicago, IL

Alex Eastman

Trevor Moore

Zicheng Zhen

Hari Pingali

Xifan Yu

Zihao Li

Naomi Sweeting

Yutong Qing

## University of Illinois at Urbana–Champaign, Champaign, IL

Alan Hu

Kieran Kaempfen

Weiru Chen

Jason Xia

Samuel Guo

## University of Maryland, College Park, College Park, MD

Justin Hontz

**THE WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION**

**University of Michigan, Ann Arbor, Ann Arbor, MI**

Aman Karunakaran

Noah Luntzlara

Yuxuan Bao

Conor Thompson

Omer Siddiqui

**University of Minnesota, Morris, Morris, MN**

Tyrus Martin

**University of Minnesota, Twin Cities, Minneapolis, MN**

Beren Gunsolus

Nhung Pham

**University of Nebraska, Lincoln, Lincoln, NE**

Alex Heitzman

**University of North Carolina at Chapel Hill, Chapel Hill, NC**

Robert Zeller

**University of North Texas, Denton, TX**

Rhythm Garg

**University of Notre Dame, Notre Dame, IN**

Yuxin Lin

**University of Pennsylvania, Philadelphia, PA**

Benjamin Foster

John Zhang

Zachary Sekaran

James Chapman

**University of Pittsburg, Pittsburg, PA**

Connor Schwartz

**University of Rochester, Rochester, NY**

Trung Nguyen

**University of Southern California, Los Angeles, CA**

Jingxin Zhang

**University of Texas at Austin, Austin, TX**

Aditya Parulekar

Alexander Li

Dachey Lin



# THE WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION

## University of Texas at Dallas, Richardson, TX

Grant Zierer

## University of Toronto, Toronto, ON, Canada

Calder Morton Ferguson

Nathaniel Libman

Yukai Zhang

Jennifer Guo

Rafael Aznar

Jerry Bao

Yexinhao Zhou

## University of Vermont, Burlington, VT

Phuc Tran

## University of Washington, Seattle, WA

Everett Cheng

Rory Soiffer

## University of Waterloo, Waterloo, ON, Canada

Anton Iliashenko

Jihanjie Luo

Timothy Wahyudi

Clive Chan

Nicholas Sun

Wanchun Shen

Felix Bauckholt

Reyno Tilikaynen

Xinyu Wang

Fengyang Wang

Robert Cummings

Yizhe Liu

Frieda Rong

Ruben Partono

Hunter Hong

Sina Abbasi

## University of Wisconsin, Madison, Madison, WI

Mingxuan Wu

Tairan Ma

Ruiting Tong

Xiixin Li

## Virginia Polytechnic Institute and State University, Blacksburg, VA

William Craig

## Washington and Lee University, Lexington, VA

Hung Chu

## Washington University, University City, St. Louis, MO

Dawei Shen

Matthew Ehren

Sam Heil

Jongwhan Park

**THE WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION**

**Wesleyan University, Middletown, CT**

Di Chen

Haochen Gao

**Williams College, Williamstown, MA**

Chenyang Sun

Richard Wu

**Worcester State University, Worcester, MA**

Nicholas Vea

**Yale University, New Haven, CT**

Agasha Ratam

Hui Yang

Michael Hong

Andrew Wei

Jack Hirsch

Noah Kravitz

Anthony Ji

Lifeng Wang

Steven Ma

Christopher Xue

Max Ranis

Tyler Shen

Elaine Hou

Michael Doppelt