

# THE WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION

## ANNOUNCEMENT OF WINNERS

of the sixty-sixth annual competition held on December 3, 2005



WILLIAM LOWELL PUTNAM

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### WINNING TEAMS

Rank	School	Team Members (in alphabetical order)
1	HARVARD UNIVERSITY	Huihui Liu, Alison B. Miller, and Teng Zhang
2	PRINCETON UNIVERSITY	Amr Camdal, Andrei Negut, and Aaron C. Pixton
3	OXFORD UNIVERSITY	Nikolai C. Blumstahl, Inga Ferguson, and Ulaganathan
4	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	Timothy G. Abbott, Vladimir Bogdan, and David H. Cox
5	UNIVERSITY OF WATERLOO	Oliver Barnumshofer, Ralph Farnsworth, and Xianwen Li

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 \$12,000 and \$400; for third place \$13,000 and \$500; 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 SIX HIGHEST RANKING INDIVIDUALS

Each receives an award of \$1,500.

MIGUEL GONZALEZ	Massachusetts Institute of Technology
MATTHEW M. INCE	Massachusetts Institute of Technology
DANIEL M. KANE	Massachusetts Institute of Technology
✓ DEEYI LIU	Harvard University
✓ HUIHUI LIU	Harvard University
AARON C. PIXTON	Princeton University

### THE NEXT TEN HIGHEST RANKING INDIVIDUALS

Each receives an award of \$1,000.

ROBERT M. BARRINGTON LEIGH	University of Toronto
THOMAS D. HELDLOFFER	Massachusetts Institute of Technology
RICHARD V. INGS	Carnegie Mellon University
✓ STEVEN I. HOFMANN	Harvard University
ALEXANDER D. IRK	University of Calgary
FO-BO LIU	California Institute of Technology
✓ ALISON B. MILLER	Harvard University
THANASIS NAMPALAKIS	Massachusetts Institute of Technology
ERIC C. PRICE	Massachusetts Institute of Technology
KUAT T. THASITROT	Massachusetts Institute of Technology

### THE NEXT EIGHT HIGHEST RANKING INDIVIDUALS

Each receives an award of \$500.

RALPH FURMANIAK	University of Waterloo
HUIYI SUO KIM	Massachusetts Institute of Technology
ANDREW CALYON LEE	University of Chicago
ROGER MORRIS	University of Toronto
ANDREI NEGUT	Princeton University
DIMITRI V. OSTROV	Yale University
STEVEN W. STEIN	Massachusetts Institute of Technology
LICHEN ZHANG	Duke University

## HONORABLE MENTION—TEAMS

CALIFORNIA INSTITUTE OF TECHNOLOGY  
CARNEGIE MELLON UNIVERSITY  
STANFORD UNIVERSITY  
UNIVERSITY OF TORONTO  
YALE UNIVERSITY

Justin Blanchard, Po-Ruh Loh, and Rumen Zarev  
Richard V. Biggs, Paul Zagieboylo, and Chunhua Zhang  
John W. Hegeman, Serin Hong, and Robert D. Hough  
Robert Barrington Leigh, David Tianyi Han, and Jacob Tsimerman  
Joshua D. Batson, Lazar Krstic, and Dimiter V. Ostrev

## HONORABLE MENTION—INDIVIDUALS

TIMOTHY G. ABBOTT, Massachusetts Institute of Technology  
BORIS ALEXEEV, Massachusetts Institute of Technology  
✓IAE M. BAE, Harvard University  
JONGMIN BAEK, Massachusetts Institute of Technology  
JOSHUA D. BATSON, Yale University  
NATTH BEJRABURNIN, Stanford University  
KSHIPRA U. BHAWALKAR, Duke University  
JUSTIN E. BLANCHARD, California Institute of Technology  
NIKIFOR C. BLIZNASHKI, Duke University  
OLENA BORMASHENKO, University of Waterloo  
ANA CARAIANI, Princeton University  
PO-NING CHEN, Massachusetts Institute of Technology  
ANDREW J. CRITCH, Memorial University of Newfoundland  
FERNANDO A. DELGADO, University of Michigan, Ann Arbor  
ANAND R. DEOPURKAR, Massachusetts Institute of Technology  
GABRIEL E. GAUTHIER-SHALOM, McGill University  
ELYOT J. L. GRANT, University of Waterloo  
MATHIEU GUAY-PAQUET, McGill University  
JOHN W. HEGEMAN, Stanford University  
ROBERT D. HOUGH, Stanford University  
NATHANIEL J. INCE, Massachusetts Institute of Technology  
LOZAN M. IVANOV, California Institute of Technology  
JUNEHYUK JUNG, University of Chicago  
NIMA KAMOOSI, University of British Columbia  
DMYTRO KARABASH, Columbia University  
PRAMOOK KHUNGURN, Massachusetts Institute of Technology

SUNGYOON KIM, Massachusetts Institute of Technology  
AARON D. KLEINMAN, Princeton University  
ROMAN L. KOGAN, State University of New York, Stony Brook  
GABRIEL E. KREINDLER, Princeton University  
✓JOEL B. LEWIS, Harvard University  
JOSHUA J. LIM, Massachusetts Institute of Technology  
YUNCHENG LIN, Massachusetts Institute of Technology  
ALEKSANDAR D. LISHKOV, Princeton University  
PO-LING LOH, California Institute of Technology  
THOMAS J. MILDORF, Massachusetts Institute of Technology  
SAMUEL A. MINER, Pomona College  
PAUL D. NELSON, Princeton University  
VIRGIL C. PETREA, Massachusetts Institute of Technology  
NATEE PITIWAN, Williams College  
WEI QUAN JULIUS POH, Cornell University  
VEDRAN SOHINGER, University of California, Berkeley  
KIAT CHUAN TAN, Stanford University  
MATTHEW J. THIBAUT, Massachusetts Institute of Technology  
DAVID W. VINCENT, Massachusetts Institute of Technology  
NATHANIEL G. WATSON, Washington University, St. Louis  
RYAN B. WILLIAMS, Stanford University  
YEOIL YOON, California Institute of Technology  
CHUNHUA ZHANG, Carnegie Mellon University  
✓TONG ZHANG, Harvard University  
✓YAN ZHANG, Harvard University

## ELIZABETH LOWELL PUTNAM PRIZE

Winner receives an award of \$1,000.

ALISON B. MILLER

Harvard University

## QUESTIONS COMMITTEE

Hugh L. Montgomery (Chair), University of Michigan, Ann Arbor; Titu Andreescu, University of Texas, Dallas; and Steven Tschanz, Vanderbilt University.

A total of 3545 students from 500 colleges and universities in Canada and the United States participated in the Competition. There were teams from 395 institutions. More complete details will appear in the *American Mathematical Monthly*.