

THE WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION

ANNOUNCEMENT OF WINNERS

of the seventy-second competition held on December 3, 2011

WINNING TEAMS

<i>Rank</i>	<i>School</i>	<i>Team Members (in alphabetical order)</i>
1	HARVARD UNIVERSITY	Eric K. Larson, Evan M. O'Dorney, and Alex (Lin) Zhai
2	CARNEGIE-MELLON UNIVERSITY	Michael T. Druggan, Albert Gu, and Archit U. Kulkarni
3	CALIFORNIA INSTITUTE OF TECHNOLOGY	Zarathustra E. Brady, Samuel S. Elder, and Brian R. Lawrence
4	STANFORD UNIVERSITY	Seok Hyeong Lee, Gyujin Oh, and Lyuboslav N. Panchev
5	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	Vlad Firoiu, Colin P. Sandon, and Jacob N. Steinhardt

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.

SAMUEL S. ELDER	California Institute of Technology
BRIAN R. LAWRENCE	California Institute of Technology
SEOK HYEONG LEE	Stanford University
XIAOSHENG MU	Yale University
EVAN M. O'DORNEY	Harvard University

THE NEXT NINE HIGHEST RANKING INDIVIDUALS

Each receives an award of \$1,000.

MICHAEL T. DRUGGAN	Carnegie-Mellon University
RAVI K. FERNANDO	Stanford University
ALBERT F. GU	Carnegie-Mellon University
BENJAMIN P. GUNBY	Massachusetts Institute of Technology
BRIAN C. HAMRICK	Massachusetts Institute of Technology
MITCHELL M. LEE	Carnegie-Mellon University
XUE (BAKU) LIU	Princeton University
PALMER C. MEBANE	Harvey Mudd College
JONATHAN T. SCHNEIDER	Massachusetts Institute of Technology

THE NEXT NINE HIGHEST RANKING INDIVIDUALS

Each receives an award of \$250.

BENJAMIN C. ALPERT	Carnegie-Mellon University
VLAD FIROIU	Massachusetts Institute of Technology
MENDEL M. FRIEDMAN	Touro College
MICHAEL Z. R. GOTTLIEB	Rensselaer Polytechnic Institute
VLADISLAV O. KONTSEVOI	Massachusetts Institute of Technology
ZIPEI NIE	Massachusetts Institute of Technology
DAVID S. ROLNICK	Massachusetts Institute of Technology
FEI SONG	University of Virginia
ALEX (LIN) ZHAI	Harvard University

HONORABLE MENTION—TEAMS

HARVEY MUDD COLLEGE
UNIVERSITY OF BRITISH COLUMBIA
UNIVERSITY OF MICHIGAN, ANN ARBOR
UNIVERSITY OF VIRGINIA
WILLIAMS COLLEGE

Craig Burkhart, Sorathan Chaturapruek, and Palmer C. Mebane
Karlming Chen, Ronnie Chen, and Aram Ebtakar
Paul Lewis, Nicholas Triantafillou and Zeyin Zhang
Casey Mihalow, Christopher Olund, and Fei Song
Carlos Dominguez, Jared Hallett, and Liyang Zhang

HONORABLE MENTION—INDIVIDUALS

ALEXANDER G. ANDERSON, Washington University, St. Louis
NOAH M. ARBESFELD, Massachusetts Institute of Technology
HARRISON R. BROWN, University of Alabama, Tuscaloosa
SIYUAN CAI, Northwestern University
WESLEY H. CAO, Princeton University
JEFFREY CHEN, Stanford University
RUIYUAN CHEN, University of British Columbia, Vancouver
PAUL F. CHRISTIANO, Massachusetts Institute of Technology
CESAR A. CUENCA, Massachusetts Institute of Technology
THEODORE M. DOKOS, The Ohio State University
AKASHNIL DUTTA, Massachusetts Institute of Technology
PETER Z. FEDAK, Harvey Mudd College
GREGORY J. GAUTHIER, Vanderbilt University
WHAN GHANG, Massachusetts Institute of Technology
TRAVIS J. HANCE, Massachusetts Institute of Technology
YANGZHOU HU, Massachusetts Institute of Technology
JIAOYANG HUANG, Massachusetts Institute of Technology
HYUN SUB HWANG, Massachusetts Institute of Technology
TIAN-YI D. JIANG, Massachusetts Institute of Technology
ZHAORONG JIN, California Institute of Technology
SUPANAT KAMTUE, Massachusetts Institute of Technology
ARCHIT U. KULKARNI, Carnegie-Mellon University
REED S. LAFLECHE, Massachusetts Institute of Technology
ERIC K. LARSON, Harvard University
ALEXANDER S. LEAF, Princeton University
HOLDEN LEE, Massachusetts Institute of Technology
SHIYU LI, University of California, Berkeley
BOWEI LIU, Princeton University
CHENG MAO, University of California, Los Angeles

CASEY R. MIHALOEW, University of Virginia
TUDOR PADURARIU, University of California, Los Angeles
LYUBOSLAV N. PANCHEV, Stanford University
GREGORY A. PEAIRS, Stanford University
AARON D. PRIBADI, Harvey Mudd College
TIMOTHY B. REYNOLDS, Massachusetts Institute of Technology
ZEV S. ROSENGARTEN, Princeton University
COLIN P. SANDON, Massachusetts Institute of Technology
WILLIAM A. SCHLIEPER, University of North Carolina, Chapel Hill
JEFFREY D. SHEN, Massachusetts Institute of Technology
XIAOLIN SHI, Massachusetts Institute of Technology
JONATHAN W. SIEGEL, University of California, Santa Cruz
DEYAN S. SIMEONOV, Stanford University
JIALIN SONG, University of Toronto
WARUT SUKSOMPONG, Massachusetts Institute of Technology
MATTHEW C. SUPERDOCK, Princeton University
NOAH J. TAYLOR, The Ohio State University
NICHOLAS G. TRIANTAFILLOU, University of Michigan, Ann Arbor
BOGDAN VEKLYCH, Massachusetts Institute of Technology
MARK L. VELEDNITSKY, Massachusetts Institute of Technology
DANIEL R. VITEK, Duke University
TENGYAO WANG, Princeton University
TIANQI WU, Massachusetts Institute of Technology
KERRY K. XING, Massachusetts Institute of Technology
ALLEN L. YUAN, Harvard University
TONG ZHAN, Yale University
QIUYI ZHANG, Princeton University
ZEYIN ZHANG, University of Michigan, Ann Arbor
ANDY ZHU, Princeton University

ELIZABETH LOWELL PUTNAM PRIZE

Winner receives an award of \$1,000

FEI SONG

University of Virginia

QUESTIONS COMMITTEE

Izabella Laba (Chair), University of British Columbia, Vancouver; and George T. Gilbert, Texas Christian University, and Djordje Milićević, Max Planck-Institut für Mathematik.

A total of 4440 students from 572 colleges and universities in Canada and the United States participated in the Competition. There were teams from 460 institutions. More complete details will appear in the *American Mathematical Monthly*.