PRIMES

MIT Program for Research in Mathematics, Engineering, and Science for High School Students (web.mit.edu/primes)

Cumulative Report

PRIMES students at the Third Annual PRIMES conference at MIT, May 2013

MIT PRIMES is a free, year-long after-school research program for high school students, offering projects in mathematics, computer science, and computational biology. This is the only program in the United States that gives students an opportunity to pursue serious research in a university setting at a natural pace, over the period of one year, under the guidance of academic mentors.

- In 2011-2017, **226 research projects** completed by PRIMES students;
- All projects presented at **seven annual PRIMES conferences**;
- **44 students** invited to present at the MAA Undergraduate Student Poster Session of the Joint Mathematics Meetings in 2012-2015, and **11 received an Outstanding Presentation award**;
- **1st, two 3rd, and one 4th Awards** at the Intel International Science and Engineering Fair;
- **1st Prize** ($100K scholarship), **three 2nd Prizes** ($50K), **two 4th Prizes** ($30K), **two 5th Prizes** ($20K), **27 regional finalists**, and **55 semifinalists** in the Siemens Competition in Math, Science & Technology;
- **1st Place** ($150K), **three 2nd Places** ($75K/$175K), **two 3rd Places** ($35K/$50K), **4th Place** ($40K), **6th Place** ($80K), **10th Place** ($20K), **6 national finalists**, and **36 national semifinalists/scholars** in Intel/Regeneron Science Talent Search;
- **Four Davidson Fellow Laureates** ($50K) and **five Davidson fellows** ($25K & $10K).
**PRIMES IN 2017**

Currently 54 local PRIMES students are working on individual and group research projects and studying in reading groups in mathematics, computer science, and physical and computational biology. PRIMES-USA, a distance-mentoring research section for out-of-state students, has expanded to 19 students. We have established partnerships with Cornell University, the University of Michigan, the University of Illinois at Chicago, SUNY at Stony Brook, CUNY – City College, and MathWorks, which provide projects for seven PRIMES-USA students. PRIMES Circle, a math enrichment section for students with disadvantaged backgrounds from local urban public high schools, has 13 students (77% female; 15% African-American; 8% Hispanic). The total number of students has reached 86, including 16 girls.

PRIMES Circle student making an expository presentation at MIT, December 2013

**SPONSORS**

PRIMES acknowledges generous support from MIT Mathematics Department, MIT EECS Department, Clay Mathematics Institute, Morgan Stanley, Simons Foundation, the National Science Foundation, Quanta Computer, MathWorks, Webster Foundation, Hamilton Foundation, Rosenbaum Foundation, and individual sponsors. PRIMES is currently seeking funding for the 2018 cycle from sources both within and outside MIT. Please contact PRIMES Program Director Dr. Slava Gerovitch at <primes@math.mit.edu>.

**PROGRAM COORDINATORS**

Prof. Pavel Etingof, Mathematics  
Prof. Srini Devadas, Computer Science  
Dr. Slava Gerovitch, Director