



Canadian Mathematical Society
Société mathématique du Canada

MATH TEAM CANADA
L'ÉQUIPE MATH DU CANADA

2012
Biographies

Matthew Brennan - Team Member

Matthew Brennan was born in Toronto, Canada, in 1994. He graduated from Upper Canada College this May and will be attending MIT in the fall.

Matthew was first introduced to math contests in Grade 8 and began preparing for the AMC contests and math Olympiads in Grade 9. Since then, his interest in mathematics and math contests has become a serious pursuit. Although Matthew enjoys all Olympiad math problems, he particularly likes synthetic geometry problems and rarely leaves his house without several in his pocket.

This year, Matthew received Honourable Mention in the Canadian Math Olympiad and ranked 5th overall. He also received Honourable Mention in the USA Math Olympiad, ranking 3rd in Canada and 18th in North America. Last year, Matthew ranked 8th in the Canadian Math Olympiad and 2nd in Canada in the Asian Pacific Math Olympiad. He also earned a Bronze Medal at the 2011 International Math Olympiad as a member of the Canadian team.

Aside from contest math, Matthew has obtained prizes in math, economics, history, biology, chemistry, art and Latin. He enjoys badminton and playing the trumpet in his spare time and was a member of his school's Wind Ensemble for five years. He was head of the school's Math Society and tutored his peers in math and chemistry. He currently volunteers in the creative arts program at Holland Bloorview Kids Rehabilitation Hospital on weekends. Matthew also enjoys movies, traveling and food.



Calvin Deng - Team Member

Biography not currently available.



James Rickards - Team Member

James Rickards was born in Winnipeg, Manitoba in 1994. Born into a military family, he has lived around Canada and the US, ending up in Ottawa for high school at Colonel By Secondary School.

James started to show interest in math in elementary school, learning how to do square roots by hand. As he rose through the grades, he studied math more and more in his spare time by reading books. In middle school, he competed in the Mathcounts State Competition for three years, though he never reached the national level. This helped push him to study even harder. James credits hard work for his successes; all of his math since grade 5 has been learned from books or the internet.



In grade 9, James made the Canadian Math Olympiad, USAMO, and was top 5 on Fermat. He was rewarded with invitations to both the Waterloo Seminar and the National Math Camp. In grade 10, he progressed quickly, winning 2nd on the CMO, 5th in Canada on the APMO, and top 5 on the Euclid. In Grade 11, he was selected for the Canadian Winter Camp, received honourable mention on the CMO, and was finally selected for the IMO.

In grade 9, James found mathematical stimulation from meetings with Professor Barry Jessup from the University of Ottawa. He also participated in their Putnam preparation sessions, hosted by Professor Pieter Hofstra. He credits Jessup and Hofstra with his introduction to post-high school mathematics.

In grade 10, James wrote an article on polynomials, and sent it off to the American Math Monthly, the most read math journal in the world. This article was published in the April 2011 edition of the Monthly, and he thus became the youngest person to be published in the journal.

In addition to mathematics, James is also a licensed glider pilot, flying his first solo flight at the age of 14. He enjoys hiking, camping, fishing, being outdoors, playing sports, and games of all sorts. He is an avid follower of hockey and supporter of the Ottawa Senators.

Next year, James will be studying mathematics at Cambridge University in England as a recipient of the prestigious Blythe Cambridge Commonwealth Scholarship.

Alex Song - Team Member

Zhuo Qun (Alex) was born in Tianjin, China in 1997. He came to Canada in 2002 with his parents, and is currently study in Phillips Exeter Academic, NH. He took an interest to math at a young age; and started participating in competitions in Grade 1. Then, he took the Pythagoras Contest, intended for 6th graders, which really got him interested in competitions. With the help of a great teacher, Mr. Jack Bristow, who interested him in contest math and allowed for him to take contests of varying levels, including the COMC (Canadian Open Math Challenge) and AMC-10 (American Math Competition) in Grade 4.



Alex got interested in solving Olympiad-type problems in Grade 5, after making the USAMO (United States of American Mathematics Olympiad) in Grade 4 and realizing the toughness of the problems. He was determined to get better at the hard problems, because they were a big challenge for him to solve. With the continued help of Mr. Bristow and books that his father bought for him, he got more and more interested into the concept of a hard but fulfilling problem once solved.

In Grade 7, he made the 2010 CMS Winter Camp, which is a training camp for the top 12 members to identify

potential for the Canadian IMO Team. It was the first camp that Alex attended, and for him it was a camp of great improvement, for it was the first time he did only math for an extended period of time. He received an honorable mention in the APMO (Asian Pacific Math Olympiad) and a 1st place finish in the CMO (Canadian Math Olympiad) en route to making the IMO. In Grade 8, he received a gold medal in the APMO, an honorable mention in the USAMO, and 3rd place in the CMO, and as a result, made the IMO team again and got gold medal. In Grade 9, He received winner in the USAMO, and a 2nd place finish in the CMO (Canadian Math Olympiad)

Outside of Olympiad mathematics, Alex received a perfect 15 on the AIME and tied for first place on the Mandelbrot contest this year. Outside of mathematics, Alex enjoys playing piano, playing chess, Bridge and solving the Rubik's Cube, as well as other similar thought-games and puzzles. He also likes physics and chemistry and will continue to pursue his scientific interests in high school.

Daniel Spivak - Team Member

Daniel Spivak was born in Tel Aviv, Israel in 1995. He moved to Canada with his family at the age of nine, and has been living in the GTA since. He is currently enrolled in the International Baccalaureate program at Bayview Secondary School, and is in grade 11.

Daniel became interested in math at the age of three, and was taught by his parents and older brother for several years. He wrote his first math contest in grade three, winning the city-wide math contest intended for grade five students, and was allowed to participate in a grade 10 math course the next year. He continued to write math contests once he moved to Canada in 2005, and achieved high scores on multiple contests, including perfect scores in Pascal, Cayley and Fermat, as well as top five in Euclid in 2011 and 2012.



In 2010, Daniel qualified for the USAMO. The next year he got a perfect score on the AMC 10B, honourable mentions in the CMO and USAJMO, as well as a Bronze medal in the APMO. In 2012, Daniel was invited to the Canadian Winter Olympiad Training Camp. He got a perfect score on AIME, placed 3rd on the CMO and was selected for the Canadian IMO team.

Daniel is also interested in Computer Science; this year, he was invited to stage two of the Canadian Computing Competition, and received a silver medal. Daniel enjoys swimming and alpine skiing in his spare time.

Kevin Zhou - Team Member

Kevin Zhou was born in Tianjin, China in 1994. He moved to Alberta with his family in 2001 and lived in Alberta until 2004, when he moved again to Toronto, Ontario. He currently resides in Markham, Ontario, and is finishing Grade 12 at Woburn Collegiate Institute.

Kevin has shown interest in mathematics since Grade 3, when his father introduced him to the properties of integers and rational numbers. He immediately engaged himself in finding patterns in numbers with a calculator, which he used to factor the number 9999999. His keen interest in number theory continued; in Grade 6, he found that the decimal expansion of $1/p$, where p is a prime greater than five, repeats with a period that divides $p-1$. Meanwhile, he developed skills in other areas of math as well – trigonometry, geometry, and algebra. Motivated by the skills he had acquired, Kevin wrote his first math contest, the 2007 CNML, when he was in Grade 7, and achieved a perfect score of 40.



In the years that followed, Kevin wrote ever more challenging contests. In Grade 9, Kevin achieved a score of 10 on the AIME and qualified to write the USAMO. In Grade 10, Kevin achieved Division 2 in CMO, a score of 88 on the 2010 Euclid Contest, and an Honourable Mention on the USAJMO with a score of 35. This year, Kevin

ranked 3rd in the CMO and achieved a score of 21 on USAMO.

Besides math, Kevin also participates in chess tournaments. Kevin has played chess competitively since Grade 8 and has won many scholastic and regional tournaments by individual score. He has also participated in DECA in Grade 11 and 12, qualifying for the DECA provincials both times, and is a member of the Woburn Reach for the Top team, which has placed high in many regional and provincial Reach for the Top tournaments. He has also been involved in his school's Wind Ensemble for four years – for which he plays the clarinet and the bass clarinet – and his school's Concert Choir for three years. He enjoys tutoring math and plans to organize his own math class at the Olympiads School this summer.

In his spare time, Kevin's likes to read science fiction books, solve the Rubik's cube, play video games and factor large integers. He has factored a 186-digit number by himself and is currently helping NFS, a distributed computing project, to factor a record-setting 320-digit number $2^{1061}-1$.

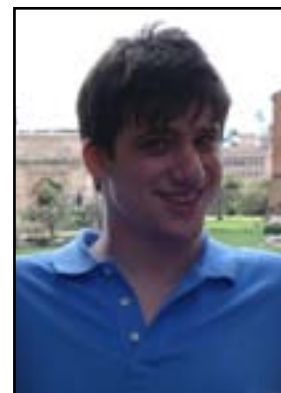
Jacob Tsimerman - Team Leader

Jacob Tsimerman recently completed his PhD. in Mathematics at Princeton University with Peter Sarnak. Starting this fall, he will begin a 3 year postdoc at Harvard as a junior fellow.

Jacob was on the 2003 and 2004 Canadian IMO teams, getting two gold medals and attaining a perfect score at the 2004 IMO. He also participated in the Putnam Competition in 2005, placing in the top 15.

In his spare time, he enjoys doing recreational mathematics, listening to music, and reading comic books. His hobbies include judo, playing the guitar, and learning to dance tango.

He has been at Harvard as a Junior Fellow since Fall of 2011.



Lindsey Shorser - Deputy Leader

Lindsey Shorser is an instructor at the University of Toronto where she received her Ph.D. in 2010. In 2008, she served as Deputy Leader Observer to the Canadian IMO team in Spain and has been involved in the marking of the COMC and APMO.

Recently, Lindsey has participated in various curriculum development projects and web-based initiatives that reflect and explore the changing nature of education. Her research interests include mathematical education and, in particular, mathematical communication, multiple representations of mathematical ideas, and switching representations.

In her free time, Lindsey enjoys music, cycling, cooking, water sports, and reading science fiction.



Ralph Furmaniak - Leader Observer

Biography not currently available.

