

2021 CMS Competitions Report

Competitions

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Jessica Wallace (CMS)

Events and Meetings Organizer

Happy New Year! 2021 was quite the year for CMS! Due to the pandemic, CMS had to make a few difficult decisions to make in regards to the competitions. Our national teams continued to compete online for the European Girls Mathematical Olympiad (EGMO) and International Mathematical Olympiad (IMO). We had another great year with the Canadian Open Mathematical Competition (COMC), and Canadian Mathematical Gray Jay Competition (CMGC), which aims at younger students wishing to compete in a fall math competition.

European Girls' Mathematical Olympiad



European Girls' Mathematical Olympiad was slated to take place in Kutaisi, Georgia from April 9 to 15, but quickly pivoted to a virtual competition again. Mariya Sardarli (Leader) and Elnaz Hessami Pilehrood (Deputy Leader) trained our 2021 team: Alison Tsylin, Jennifer Wang, Yifan Tang, and Kaylee Ji. Anna Krokhine (observer with Deputy) also supported the training process

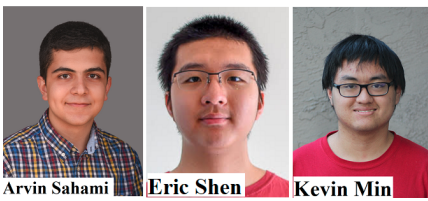
What a momentous occasion it was! Kaylee Ji became the first Canadian female student to win a gold medal at EGMO. Executive Director of CMS, Termeh Kousha was excited to hear the news. "This is a great victory for the Canadian community, for girls in math and STEM, and for the CMS."

Dorette Pronk who has been heavily involved with EGMO's Canadian Team for many years was so pleased with the results :

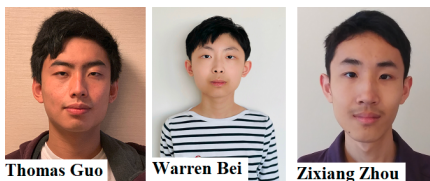
I am greatly impressed by the hard work put in by the team leaders, the students and all the trainers who contributed their time and skills. Although the competition is written by each student individually, the training and preparation is truly team work. I am very pleased with the first gold medal for Canada's EGMO team, and I look forward to seeing what each of these girls will do as she continues to pursue her dreams and explores her talents. I hope that they have all experienced that they are a valued member of the Canadian and world-wide math community!

See the [EGMO media release](#) for additional information.

International Mathematical Olympiad



The IMO was scheduled to take place in St. Petersburg, Russian Federation, but eventually was decided to be held virtually. The team members this year were Eric Shen, Thomas Guo, Zixiang (Peter) Zhou, Kevin Min, Arvin Sahami and Warren Bei. The IMO regulations determined that all students must write from an IMO testing location. The University of Waterloo graciously allowed CMS and the IMO team to use their facilities to write the competition. This year's team was coached by leaders and previous IMO medal winners, Alex Song (Citadel LLC) and Dani Spivak (University of Toronto).



Thomas Guo

Warren Bei

Zixiang Zhou

The opening ceremony for the IMO took place online on July 18th and the contest was held from July 19th to 20th at each country's writing centres. Due to COVID restrictions, some CMS friends, including Robert Garbary, helped to invigilate the competition. Big congrats to Eric Shen, Thomas Guo and Zixiang Zhou who took home gold; Kevin Min, Arvin Sahami and Warren Bei who took home silver!!

The Co-Chair of IMO committee, James Rickards was very pleased with the results:

"The 2021 IMO was a great success for Canada. We received 3 gold medals for only the third time, and added 3 silver medals to the haul. The 5th place result matches the 2012 team for highest country ranking."

See the [IMO media release](#) and [IMO report](#) for more information.

Canadian Open Mathematics Challenge



This year, the CMS formed new partnerships with Asian Math Alliance (AMA): Singapore; Magic Square: Hong Kong, Macau; MathsRFun: Australia, New Zealand; and Transitions Lab Preparatory School: India. The organizers were delighted to take part in a Canadian competition, and the students were just as elated, as some had never competed internationally.

As the pandemic is still going on, it proved to be another difficult year for teachers across the country. The schools who did participate had the opportunity to administer the COMC exam in-person. Those who were unable to participate with their school, had the opportunity to register with university writing centres, which included online and some in-person. Overall, there were 5197 exams purchased, which included those schools who received it digitally, and 275 who wrote online. Marking is completed for COMC and we look forward to announcing the results soon.

Canadian Mathematical Gray Jay Competition



The new Canadian Mathematical Gray Jay Competition was aimed at students in grades 5-8 but any student was welcome to compete. CMS formed a Gray Jay Committee with mathematicians from across Canada to create an exam with 15 multiple-choice questions. Overall, Gray Jay had 2793 exams purchased across Canada and internationally. 1970 of those were online and 823 print exams.

Girls Initiative and Closing the Gap

CMS would like to give a big thank you to the Royal Bank of Canada, who supported and funded the Girls Initiative. The Girls Initiative purpose is to encourage girls to confidently register and take part in mathematical competitions. We were able to provide a limited number of free registrations to girls wishing to participate in COMC and Gray Jay. We saw an increase in girl participation because of the Girls Initiative.