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Application Form for the CMS 2022 Endowment Grants Competition

Deadline September 30

## Title of Proposal

Math in the Community

## Contact information

*The one person and place to communicate with the applicant(s).*

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Telephone 416-978-4948

Fax

## Institution or department to administer grant funds

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Contact Diana Leonardo

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Summary

Less than 100 words

Total amount requested in this competition \$

2500

We are seeking funding to continue expanding our outreach into elementary, middle, and high schools across Ontario. We are continuing to coordinate robust programs that put emphasis in creating an engaging and interactive experience to foster the love of learning mathematics. The funding will help support our Fields Trip Program, Count Me In Program, and various community initiatives that we run each year. Our programs are targeted to students, teachers, and families across Ontario, with an effort in reaching those in under-served, lower income or rural areas who would not otherwise have access to these math enrichment activities.

Applicants

Put any specific information on the relevant experience or expertise of an applicant in "Other".

Name(s)	Robert Jerrard		
E-mail	rjerrard@math.utoronto.ca		
Position	Professor and Chair		
Employer	University of Toronto, Depart		
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	Toronto, ON		
	M5S 2E4		
	Canada		
CMS Member #			
Current grants			

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What you propose to do

*at most 40 lines*

The Mathematics Outreach Office at the University of Toronto offers many high-caliber math enrichment programs, but our flagship brand—what we are most proud of and most passionate about—is our programs that offer hands-on math activities to inspire youth to love mathematics. There are three main parts of the outreach to schools initiative, community programs, Fields Trip program and the Count Me In program.

The math community programs make up the backbone of our programming year, including our youth clubs, camps, pavilion events (Science Rendezvous, Alumni Weekend, math fairs), and youth conferences. These events connect the math community through fun and interactive events to foster the love of learning mathematics.

Our Fields Trip program aims to promote mathematics to students in grades 3-12 and will consist of single visits for a math workshop of approximately 1-2 hours. The mission of the Fields Trip program is to offer students from across the GTA and the surrounding areas the opportunity to experience a uniquely immersive experience in institutions of academic mathematics at the University of Toronto and, in particular, the Fields Institute.

Count Me In is designed to address the need for knowledge sharing amongst teachers in Mathematics, and working with under-represented and racialized groups to build learning communities around mathematical resources supporting effective pedagogical practices. The objective of the Count Me In program is to improve attitudes and beliefs about math for students and teachers. The program focuses on exposing and encouraging math teachers to interesting math topics, resources useful for their classroom and teaching strategies that show the breadth, power and relevance of mathematics. The Count Me In program will work towards this objective through two initiatives, a math learning community and two math institutes for teachers.

It should be noted that Math Outreach is already involved with trying to improve the crisis in elementary math teaching through the Count Me In Teachers' Institute in collaboration with the Ontario Institute for Studies in Education. This summer conference is designed specifically for teachers who do not enjoy teaching math and/or feel underprepared to do it. We had approximately 300 participants attend in the most recent conference in August 2022.

The motivation to work with schools in low-income areas comes from a few directions. First, stagnant and falling EQAO math scores in low-income areas indicate that math learning is in a crisis. Furthermore, schools participating in our math field trips program (where students come to U of T/Fields Institute for workshops) have tended to be from higher income areas, including some private schools. Though, by organizing hybrid options for our initiatives, we intend to keep our programs accessible to all schools across Ontario. We want to make our programming accessible by bringing it directly to students and schools that are least likely to access high quality math enrichment activities.

Our existing community program, Fields Trip program and experience with the Count Me In Institute puts us in a good position to continue expanding these initiatives to schools across Ontario and into areas that may not have such resources.

# Budget

*Use Tab key to navigate*

Description	Revenue		
Community Programs	0		
Fields Trip Program from Fields Institute	6000		
Count Me In Program	** See Other		
Self-Funded	12,500		
CMS Endowment Grant requested	2500		
Total Revenue \$	21,000 **See C		
Community Programs (Training, Supplies and Tools)	10,000		
Fields Trip (Salary, Supplies and Tools, Space)	9000		
Count Me In Program	** See Other		
Total Expenses \$	19,000 **See C		

**Other** *Funding, partners, revenue potential, information on applicants such as publications or awards, at most 20 lines.*

Such programs require considerable coordination with schools and volunteers and as Math Outreach is a fully self-funded unit, we are seeking your assistance to help pay for salary costs for the coordinator, as well as supplies needed for the workshops. The CMS endowment grant will be split among the three main initiatives.

While Count Me In is currently partially funded through an NSERC Promo science grant, we are looking for further support to ensure the program can be successfully offered. This year, we are aiming to expand the Count Me In Program which requires significantly more funding than previous year. The Count Me In program is projected to cost \$60,000 to run the on-going learning communities, and two conferences. These expenses cover catering, supplies, tools, room booking, salaries, honourariums and many more. We have requested for NSERC to fund approximately \$20,000 for Count Me In. We have various other sources of support such as the Pillar Institute and in-kind contributions from OISE and the Mathematics department. We are also requesting for support from PIMS and the Fields Institute to cover the costs of this program.

We hope CMS can continue supporting our initiatives bringing these initiatives to under-represented communities that may not have access to these resources!

**Project start date**

**Finish date**

