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Application Form for the CMS 2017 Endowment Grants Competition Deadline September 30

Title of Proposal

Diversity in Mathematics Summer School

Contact information

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

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Institution or department to administer grant funds

Name	Department of Mathematics, SFU		
Address	Department of Mathematics	Contact	Dale Yamaura
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Summary

Less than 100 words

Total amount requested in this competition $ 2500

We propose a multi-year, multi-level approach to promoting diversity and inclusivity in STEM. The annual two-week program will encompass two concurrent, partially overlapping events targeting two distinct groups: A summer school for top undergraduate women from across Canada, currently specializing in mathematics or other STEM fields, such as computer science, physics and statistics, and an interactive math camp that runs as a companion program to the undergraduate summer school.Participants of the camp will be high school students in grades 10 and 11 in western Canada, with an aptitude for science and mathematics but exclusively from under-privileged minority groups: First Nations, communities with socio-economic challenges such as Vancouver's Downtown Eastside, geographically remote and/or rural communities in BC, Yukon and Alberta, immigrant and refugee families from areas of conflict newly arrived in the lower mainland.

Applicants

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

Name(s)	Malgorzata Dubiel	Veselin Jungic	Malabika Pramanik
E-mail	dubiel@sfu.ca	vjungic@sfu.ca	malabika@math.ubc.ca
Position	Senior Lecturer	Teaching Professor	Professor
Employer	Simon Fraser University	Simon Fraser University	University of British Columbia
Address	Mathematics Department	Mathematics Department	Department of Mathematics
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	8888 University Drive	8888 University Drive	Room 121, 1984 Mathematic
	Burnaby, BC	Burnaby, BC	Vancouver, BC
	V5A 1S6	V5A 1S6	V6T 1Z2
CMS Member #			
Current grants			

What you propose to do

at most 40 lines

We propose a multi-year, multi-level approach to promoting diversity and inclusivity in STEM. The annual two-week program will encompass two concurrent, partially overlapping events targeting two distinct groups:

. (1) A summer school for top undergraduate women from across Canada, currently specializing in mathematics or other STEM fields, such as computer science, physics and statistics. The program will expose them to the many facets of mathematical sciences as a career in an intense two-week immersion. Career opportunities in academia and industry will be given equal emphasis. We hope to encourage these gifted young women to continue on to graduate school, an arena where women are still seriously under-represented. The program will teach them topics in mathematics that lie beyond the undergraduate curriculum, offer a glimpse into the life of graduate students by introducing a research component, and reveal a wide range of possible career options, all in a collaborative environment.

. (2) An interactive math camp that runs as a companion program to the undergraduate summer school. The target demographic here involves high school students in grades 10 and 11 in western Canada, irrespective of gender, with an aptitude for science and mathematics but exclusively from under-privileged minority groups. These include, but are not limited to, First Nations, communities with socio-economic challenges such as Vancouver’s Downtown Eastside, geographically remote and/or rural communities in BC, Yukon and Alberta, immigrant and refugee families from areas of conflict newly arrived in the lower mainland. The long-term objective here is to increase the representation and retention of these groups in post-secondary institutions. The program will showcase role models to help the participants realize that they can thrive in a university setting.

The confluence of the two events is designed to act as a creative forum for mentorship and leadership. The undergraduate participants will receive advice and guidance about career opportunities in mathematics from senior and successful women. They will also learn to serve as mentors for their younger counterparts. The high school students will get a glimpse of university life, meet people who are facing and conquering challenges rooted in under-representation and isolation within their respective fields, and work together towards a common goal in a supportive environment. Catalyzing the success of minority groups in STEM fields demands a stable support network from the ground up. The program will not just teach exciting math, but also showcase role models and create a self-sustaining support system by training future leaders.

We would like to run this program for three consecutive years, and hope for funding from CMS of $2500 for each of the three years.

Budget

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Description				
		Revenue		
UBC Science and Applied Science		30,000		
SFU Science and Applied Science		10,000		
Pacific Institute for the Mathematical Sciences		25,000		
Fields Institute		12,500		
NSERC PromoScience		20,000		
	CMS Endowment Grant requested	2,500		
	Total Revenue $	100.000		
		Expenses		
Administrative salaries and benefits		20,000		
Mini-course instructors, speakers, camp coordinator		12,500		
Food, accommodation		45,000		
High school stipends (necessary for recruitment)		4,000		
Field trips, transit passes		7,500		
Supplies, website, misc.		11,000		
	Total Expenses $	100,000		

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

Promised funding from the Pacific Institute for the Mathematical Sciences, SFU Faculties of Science and Applied Science and UBC Faculty of Science and Applied Science. Application to NSERC PromoScience has been submitted.

Applicants:
Malgorzata Dubiel:
Past chair of the CMC Committee for Women in Mathematics (2000-2004), recipient of the CMS Adrien Pouliot award (2011), 3M Fellowship (2008); initiated the CMS Connecting Women in Mathematics Across Canada workshops for women graduate students (2003), coordinates SFU Summer Math Camps

Veselin Jungic
CMS Excellence in Teaching Award (2012), 3M Fellowship (2015); Organizer of the Summer Camps for Aboriginal Students at SFU.

Malabika Pramaniuk
CMS Krieger-Nelson Prize (2016); organizer of the Two Weeks in Vancouver: Summer School for Undergraduate Women in Mathematics (2016): see: https://www.pims.math.ca/scientific-event/160815-twvasswim

Project start date August 20, 2018 Finish date August 31, 2018