Math Unity: Enhancing Diversity in Mathematics Through Outreach (Org: Anton Mosunov (Cornell University) and/et Anila Yadavalli (University of Waterloo))

ELAINE BELTAOS-KERR, MacEwan

MathJAM - Towards Math for All

MathJAM is a new project originating with MacEwan University and Spruce Avenue Junior High School in Edmonton. This program aims to increase mathematics participation to those who are usually overlooked and to invite students with different abilities and learning styles to engage with mathematics and build confidence. There are already many opportunities for students with the means and family support to excel in mathematics and science (e.g. Math Kangaroo, summer camps), but opportunities for "everyone else" are relatively few. MathJAM was developed to try to address this gap. The first iteration of this project ran in fall 2024 with grade nine students from the O-day'min area (inner city Edmonton). There were no selection criteria for participants or volunteers, and all activities took place on campus at MacEwan University. In this talk, we will discuss what worked, what could be better, and how to expand this program towards creating an accessible and diverse culture around mathematics.

EDWARD DOOLITTLE, First Nations University of Canada

FRÉDÉRIC GOURDEAU, Laval

ZAW HTET, Mount Tamalpais College

Community-driven change: Teaching math in San Quentin Rehabilitation Center

This talk will explore the unique challenges of teaching mathematics in a carceral setting and share best practices developed through decades of community-driven work. Mount Tamalpais College at San Quentin Rehabilitation Center in California has offered a free liberal arts Associate of Arts degree and an intensive college preparatory program for nearly 30 years. Its mathematics program addresses the specific challenges of educational trauma, math anxiety, and gaps in prior math knowledge through high-touch, student-centered approaches supported by a dynamic and passionate community of volunteers, staff, and students.

YU-RU LIU, Waterloo

COMFORT MINTAH, Waterloo

KYNE SANTOS, OnlineKyne

ASMITA SODHI, University of Victoria

Doing Joyful Math Together: The JRMF Community Math Circle

The Julia Robinson Math Festival (JRMF) Community Math Circle is a free, online, monthly Math Circle which welcomes participants of all ages and math experience. Run by volunteers, we use online apps and other resources to facilitate the exploration of joyful math problems in small groups for both children and adults. While most of our participants are based in Canada or the United States, we have also had participants attend the Math Circle from the UK, Germany, Ukraine, Panama, Israel, and Pakistan (and others places!). In this talk, I will give an overview of how our online Math Circle came to be, successes we've had, and challenges we still face.

STAN YOSHINOBU, University of Toronto

Lifting Up

Outreach work can be a powerful way to support individuals and their communities to build stronger relationships with mathematics, and hence a potential pathway to increase diversity in Mathematics. In this talk I'll share insights from my involvement in several different outreach projects I've been involved in since 2001, where a common thread is "lifting up." Lifting up is the act of empowering students, teachers, faculty, and others, where they have more agency and opportunities.