# Mathematics Outreach Programs: Reach Out, Reach Wide, Reach Deep Programmes de sensibilisation aux mathématiques: promouvoir les maths partout et pour tous (Org: Gerda de Vries (Alberta), Malgorzata Dubiel (SFU) and/et Veselin Jungic (SFU))

MELANIA ALVAREZ, Pacific Institute for the Mathematical Sciences

A clean slate: Let them show us their talents.

Do students belonging to an ethnic minority have to deal with ethnic stereotypes on a daily basis? I will be discussing some of the realities ethnic minority students confront at school which can have significant repercussions in their school performance and future prospects.

## GENEVIEVE FOX, Siksika Board OF Education

Integrating Siksikaitsitapi Knowledge into Lifelong Learning Education in Mathematics and Science

Oki and greetings to all Educators, this session will discuss the plans to enhance the mathematics and science programs in the Siksika Board of Education through the integration of the Siksikaitsitapi (Blackfoot Confederacy) Indigenous Knowledge starting with the middle grades on the Siksika Nation. The program will inculde Siksika Nation history, Elder's and Knowledge Keepers, astronomers, science and math teachers in the creation of this unique program that will motivate and encourage the students to engage and understand the knowledge inherent in the Indigenous People of the Blackfoot Confederacy.

# DANIELLE COX, SVENJA HUNTEMANN, Mount Saint Vincent University

How to Develop a Mathematics Outreach Program

More academic institutions are putting an emphasis on the importance of community outreach. In this talk we will look at the steps involved in creating and maintaining a successful math outreach program. We will discuss some of the obstacles that one can face and how to overcome them. Time permitting, we will provide some examples of activities that NS Math Circles has put together for their outreach program. This talk will be presented by Danielle Cox (MSVU) and Svenja Huntemann (Dalhousie)

#### **VESELIN JUNGIC**, SFU

The Math Catcher Outreach Program

The Math Catcher program is a science outreach initiative at Simon Fraser University, British Columbia, with the objective of promoting mathematics among elementary and high school students, focusing on members of Aboriginal communities both in urban settings and on reserves. The storytelling, pictures, models, and hands-on activities encourage young people to enjoy math and help dispel myths that math is boring and solely abstract.

In this presentation we will, besides describing the aims and the main components of the program, give a brief summary of the current state of math education among Aboriginal population in British Columbia.

## NAVAJO MATH CIRCLES, Documentary

Navajo Math Circles

Navajo Math Circles follows Navajo students in a lively collaboration with mathematicians. The math circles approach puts children in charge of exploring mathematics to their own joy and satisfaction. Applications of math in Native culture highlight the special connections between Navajo culture, natural beauty, and mathematics.

# PAMINI THANGARAJAH, Mount Royal University

Explore IT: A Science, Technology, Engineering, and Mathematics (STEM) Outreach for grade nine girls

The Explore IT Conference was developed in 1999 to increase girls' awareness of opportunities in information and communications technologies. This annual conference, held simultaneously at the University of Calgary, SAIT Polytechnic, and Mount Royal University. This event stresses the importance of studying higher-level mathematics and science courses in high school. In this talk, I will give an overview of this conference and, outline some hands on technology sessions in mathematics.