



What I enjoy about math is...

Seeing and finding patterns and structures... making connections and analogies... creating mathematical objects with software such as The Geometer's Sketchpad... constantly revisiting my own assumptions and knowledge.

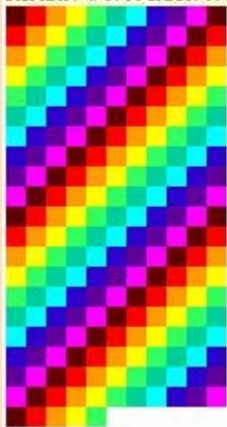
I was born in Grenoble, France while my parents, who are both teachers, were on sabbatical. But I grew up in Calgary, Alberta, playing basketball and doing lots of skiing. I did my undergraduate degree at McGill University in Montreal (still playing basketball but saving my skiing for return trips to the Rockies). I started as commerce student since no one had told me it was possible to just do math at university. I remember the day I found out and I switched immediately. After spending one year in France and another in Italy (learning how to speak Italian and how to cook!) I decided to return to school and pursue a graduate degree in the mathematics department at Simon Fraser University. There I met Dr. Berggren and decided to do a thesis on the history of mathematics, with a focus on medieval Islamic geometry. Then I got the best job in the world: teaching mathematics and French to middle school students in a new school on Bowen Island called Island Pacific School. At the same time I continued working at the CECM with Jonathan Borwein (Centre for Experimental and Constructive Mathematics) doing research on the use of technology in mathematics learning. This inspired me to return to school once again, this time to do a PhD in mathematics education at Queen's University.

The Aesthetic *Is* Relevant

The Colour Calculator is a regular, internet-based calculator, 'regular' in that it provides numerical results to computations, but it also offers its results in a colour-coded table. Conventional operations are provided; the division operation allows rational numbers while the square-root operator allows irrational numbers. Each digit of the result corresponds to one of ten distinctly coloured swatches.

-Nathalie Sinclair. "The Aesthetic *Is* Relevant." For the Learning of Mathematics: an international journal of mathematics education. Vol. 21, num.1. March, 2001.

Equation: 9876543210 / 9999999999
Results: .987654321098765432109876



teaching

I am currently an Assistant Professor of Mathematics Education at Michigan State University. I teach pre-service teachers as well as mathematics education graduate students various mathematics and education courses. I am also researching issues related to student mathematics learning.

research

INSPIRATION

Even after two university degrees in mathematics, I really feel like I learned most of my mathematics while teaching middle school students. As I looked for resources and ideas, I discovered all this exciting mathematics on the Internet like fractals, topology, cryptography and much more. I tried, and continue to try to bring these vibrant, contemporary mathematical ideas into the classroom.

I Made a Rainbow by John, grade 8 student
image taken from:

<http://hydra.educ.queensu.ca/Maths/beast.html>