7th Annual Richard & Louise Guy Lecture

The Mathematics of Doodling

Guest speaker Ravi Vakil (Stanford University)

5:00pm Sept 20 2012

Science B 103, University of Calgary

Doodling has many mathematical aspects: patterns, shapes, numbers, and more. Not surprisingly, there is often some sophisticated and fun mathematics buried inside common doodles.

I'll begin by doodling, and see where it takes us.

It looks like play, but it reflects what mathematics is really about: finding patterns in nature, explaining them, and extending them. By the end, we'll have seen important notions in geometry, topology, physics, and elsewhere; some fundamental ideas guiding the development of mathematics over the course of the last century; and ongoing work continuing today.

ABOUT RAVI VAKIL

Dr. Ravi Vakil is a Canadian born mathematician who is a Professor of Mathematics at Stanford University and the Packard University Fellow. He is an algebraic geometer whose work touches on topology, string

theory, applied mathematics, combinatorics, number theory, and more. As a student, he was a four time Putnam fellow at the University of Toronto. He is known for his exemplary expository ability and was the 2009 Hedrick Lecturer at the MAA's MathFest, and is the current MAA Pólya Lecturer.

Dr. Vakil is the recipient of numerous awards for both research and teaching, including the American Mathematical Society Centennial Fellowship, the Terman fellowship, a Sloan

Research Fellowship, the NSF CAREER grant, and the Presidential Early Career Award for Scientists and Engineers. As a Canadian, he received the Coxeter-James Prize from the CMS and André-Aisenstadt Prize from the CRM. He works extensively with talented younger mathematicians at all levels, from high school through recent Ph.D.'s.





ABOUT THE RICHARD AND LOUISE GUY LECTURE SERIES

The Richard & Louise Guy lecture series celebrates the joy of discovery and wonder in mathematics for everyone. Indeed, the lecture series was a 90th birthday present from Louise Guy to Richard in recognition of his love of mathematics and his desire to share his passion with the world. Richard Guy is the author of over 100 publications including works in combinatorial



game theory, number theory and graph theory. He strives to make mathematics accessible to all. The other contributions to the lecture series have been made by Elwyn Berlekamp (2006), John Conway (2007), Richard Nowakowski (2008), William Pulleyblank (2009), Erik Demaine (2010) and Noam Elkies (2011).



Department of Mathematics and Statistics

