

Butterflies, cats, and billiards in polygons

How can we instantly count the number of digits in the 10,000th term of the Fibonacci sequence without using a computer? Why does the butterfly effect cause a computer to give a completely wrong answer when counting the 100th term of the analogous sequence? Why does chaos behave very regularly over a long period of time? What is the connection between wrapping a bicycle tube over itself, playing billiards, and the Boltzmann gas? We will discuss these and other questions and, hopefully, will arrive at some of the results of the 2014 Fields Medalist, Maryam Mirzakhani.

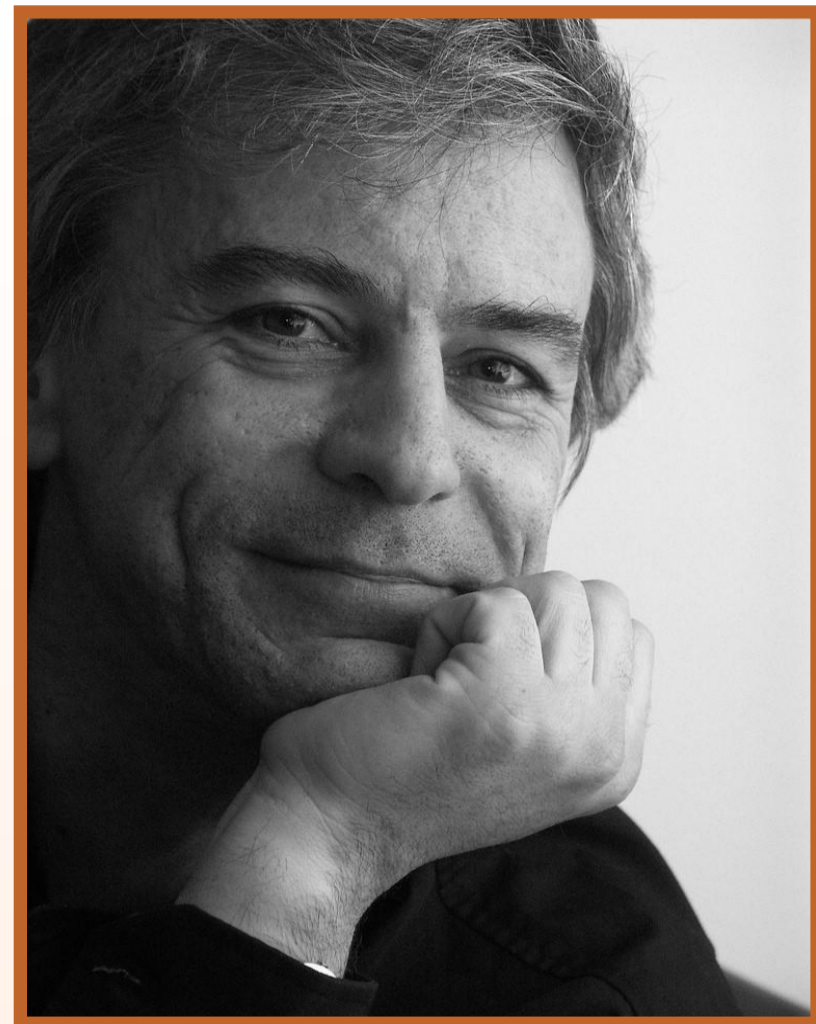


Thursday, 11 May 2017

Time : 2:00 - 3:00 pm

NUS University Hall, Auditorium

**Level 2, Lee Kong Chian Wing
21 Lower Kent Ridge Road
Singapore 119077**



Professor Anton Zorich

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Anton Zorich is Distinguished Professor of Mathematics at Université Paris Diderot - Paris 7, and is a member of the Institut Universitaire de France. His research lies at the interface of dynamical systems, geometry and topology. He often performs computer experiments, sometimes leading to conjectures which would be proved correct years or decades later. He usually works in collaboration; often with Alex Eskin and Maxim Kontsevich. He was an invited speaker at the International Congress of Mathematicians in Madrid in 2006.

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