

**Wednesday 28 November 2018**  
**Kl. 6.00 p.m. – 7.00 p.m.**  
**Kungl. Vetenskapsakademien**  
**Lilla Frescativägen 4A, Stockholm**



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THE ROYAL SWEDISH ACADEMY OF SCIENCES

## What is a random walk?

Open Academy Lecture by Professor Stanislav Smirnov, Universite de Geneve, Skoltech & SPbSU

**Host:** The Academy's class for mathematics

Almost two centuries ago a famous Scottish botanist Robert Brown observed through his microscope chaotic movement of small particles inside pollen grains.

Despite extensive studies of the "Brownian motion," as it became known, it took 80 years and Albert Einstein to explain this phenomenon, giving the first experimental evidence for the molecular structure of matter.

A century has passed, but the mathematics behind "random walks" remains a fascinating subject, appearing almost everywhere: from protein folding and forest fires to stock prices and the Internet search engines.



Stanislav Smirnov

Stanislav Smirnov was born in 1970 in Leningrad, USSR. He went to the mathematical high school #239, and twice won the International Mathematical Olympiads, in 1986 and 1987. After graduating from the St.Petersburg State University (1992) he obtained his PhD from the California Institute of Technology (1996) under the direction of N. Makarov. After holding a Gibbs instructorship at Yale University and short time positions at the Institute for Advanced Studies in Princeton and Max-Planck-Institut Bonn, Smirnov moved to Stockholm. In 1998-2005 worked at the Royal Institute of Technology in Stockholm and the Swedish Royal Academy of Sciences.

Since 2003 he is a professor at the University of Geneva, Switzerland, and since 2010 he is directing the Chebyshev Laboratory at the St. Petersburg State University. Smirnov works in several areas of mathematics and theoretical physics. His research was awarded a number of prizes, including the Fields medal (2010).

**The lecture is free of charge and open to the public. Registration is not needed. For more information please visit: [www.kva.se](http://www.kva.se)**

### Contact

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