NG KONG BENG 黄 光 明 公 开 讲 座
PUBLIC LECTURE SERIES

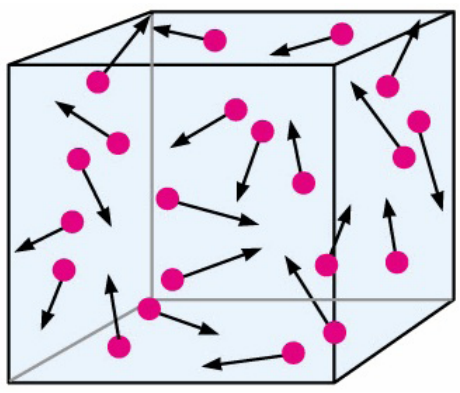
NUS National University of Singapore | IMS Institute for Mathematical Sciences

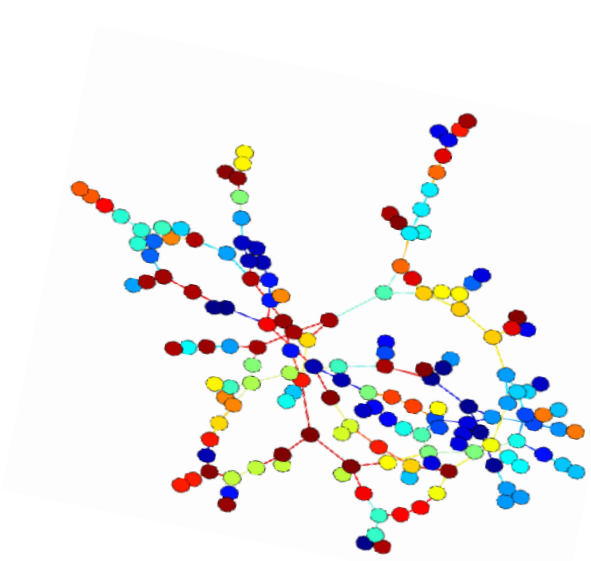
From mosquitoes to ChatGPT -- the birth and strange life of the random walk

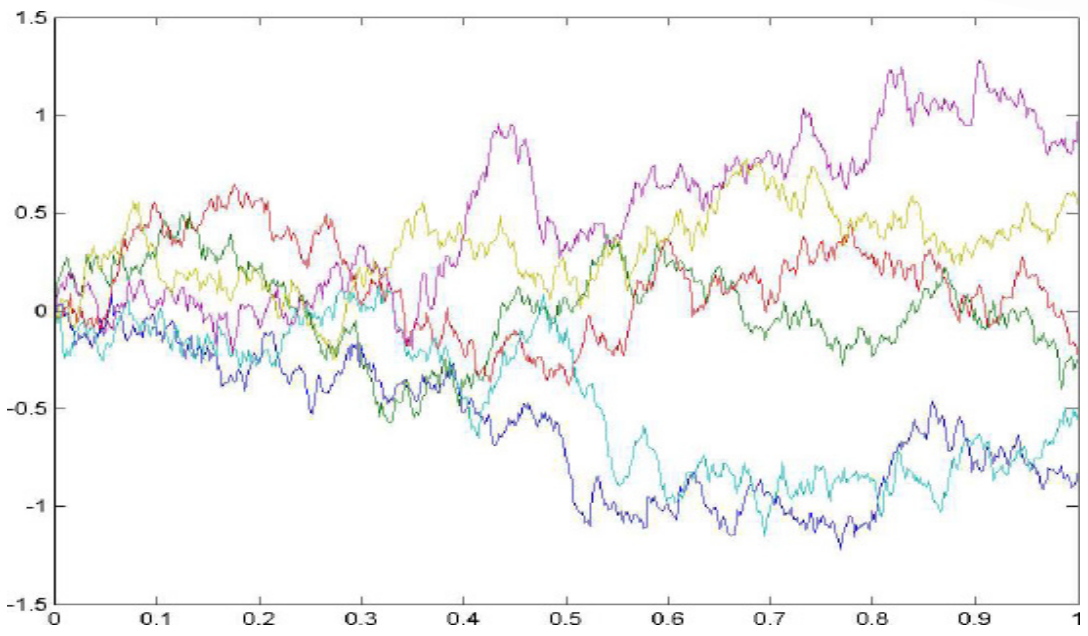
JORDAN ELLENBERG
University of Wisconsin–Madison

Abstract

Between 1905 and 1910 the idea of the random walk, now a major topic in applied math, was invented simultaneously and independently by multiple people in multiple countries for completely different purposes, from mosquito control to physics to finance to winning a theological argument (really!) I'll tell some part of this story and also gesture at ways that random walks (or Markov processes, named after the theological arguer) underlie current approaches artificial intelligence, and what this tells us about the capabilities of those systems now and in the future.







(Photo courtesy of Mats Rudels.)

Biography

Jordan Ellenberg is the John D. MacArthur Professor of Mathematics at the University of Wisconsin at Madison, specializing in number theory and algebraic geometry, with related interests in algebraic topology, combinatorics, and data science. Ellenberg has held an NSF-CAREER grant, an Alfred P. Sloan Fellowship, and a Guggenheim Fellowship, and in 2013 he was named one of the inaugural class of Fellows of the American Mathematical Society. He is also a popularizer of mathematics; his journalism has appeared in the New York Times, the Wall Street Journal, the Washington Post, Wired, The Believer, and the Boston Globe, and is the author of the New York Times bestseller How Not To Be Wrong: The Power of Mathematical Thinking.

THURSDAY, 13 June 2024
6.30PM – 7.30PM

Lecture Theatre 33
Level 2 , S17
10 Lower Kent Ridge Rd
Singapore 119076

EVENT IS FREE AND OPEN TO PUBLIC

Please register via QR code or link

*Registration will close on Wednesday, 12 June 2024, 12 noon