

# John Kinney Memorial Lecture\*

Tuesday, October 16, 2018

3:00 pm—3:50pm\*\*

1420 Biomedical and Physical Sciences Building (BPS)

Michigan State University

## Probability, Outside the Textbook

David Aldous

University of California, Berkeley



David Aldous

What does 350 years of mathematical probability theory tell us that is interesting or useful, and demonstrably true via empirical data? Introductory textbook topics have rather limited scope. In a second undergraduate course at Berkeley I attempt to show the breadth of contexts where chance arises, and this talk illustrates some topics from that course. Elo Ratings and the Sports Model; The Kelly criterion for stock investing; An example of inventing a new probability model; In what contexts of everyday life do we think in terms of chance?; Some data relating to philosophy of probability; Scoring real-world prediction tournaments; Martingales and prediction markets.

From [https://en.wikipedia.org/wiki/David\\_Aldous](https://en.wikipedia.org/wiki/David_Aldous): “**David John Aldous**, FRS (born 13 July 1952) is a mathematician known for his research on probability theory and its applications, in particular in topics such as exchangeability, weak convergence, Markov chain mixing times, the continuum random tree and stochastic coalescence. He entered St. John's College, Cambridge, in 1970 and received his Ph.D. at the University of Cambridge in 1977 under his advisor, D. J. H. Garling. Since 1979 Aldous has been on the faculty at University of California, Berkeley.

He was awarded the Rollo Davidson Prize in 1980, the Loève Prize in 1993, and was elected a Fellow of the Royal Society in 1994. In 2004, Aldous was elected a Fellow of the American Academy of Arts and Sciences. In 2012 he became a fellow of the American Mathematical Society. <http://statistics.berkeley.edu/people/david-aldous>

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\* The John Kinney Memorial Endowment Fund was established by Larry and Lois Dimmitt to support lectures in the memory of John Kinney. Professor Kinney was a member of the Departments of Statistics and Probability and Mathematics at MSU, 1965 - 1983. He would have been very pleased to know that David Aldous will present the 2018 John Kinney Memorial Lecture. John also thought “out-of-the-box.”

\*\*Refreshments before the talk.