

# Review of: "A Random Journey Through the Math of Gambling"

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**Potential competing interests:** No potential competing interests to declare.

Though my overall opinion is positive, I have mixed feelings about this work.

-- On the plus side, the topics are carefully chosen and organized, the content is well-written, the mathematics is clean with (most) proofs provided, and the presentation is pedagogical, with many examples and numerical illustrations.

-- On the minus side, the content is so classical! I recognize that the compact presentation allows the reader to find a lot of information in a short space. However, professionals will already have learned the material, albeit perhaps in a more scattered form. And amateurs or beginners will have a hard time grasping all the notions, which are quite demanding for a first introduction to the subject.

As a reader with my own biases, I would have appreciated a presentation that could compensate for the lack of originality of the substance with an emphasis on a more personal vision.

However, maybe the paper will find a readership, and there is little doubt that those trying to learn the basics of the mathematical theory of gambling and who will make the effort to keep the pace will not waste their time.

I could think of two suggestions, again biased by my own experience:

- Include a discussion of one or a few "paradoxes," for example, the Saint Petersburg paradox.
- As this result plays an important role in several areas of physics, complement the final discussion on random walks with the question of the intersection of the trajectories of two random walkers (not necessarily at the same time). For this problem, the critical dimension is 4, contrasting with the fact that the critical dimension for two walkers to visit the same position at the same time (with the obvious parity condition) is 3.