

Re: Calculus XOR Probability

Source: <http://sci.tech-archive.net/Archive/sci.math/2006-05/msg02802.html>

- *From:* Virgil <Virgil@xxxxxxxxxxxx>
 - *Date:* Mon, 15 May 2006 14:29:35 -0600
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In article <MPG.1ed290581a4f392198acd4@xxxxxxxxxxxxxxxxxxxxxxxxxxxx>, Tony Orlow <aeo6@xxxxxxxxxxxx> wrote:

cbrown@xxxxxxxxxxxxxxxxxxxx said:

Tony Orlow wrote:

For the last time, no. If the limit of the staircase is anything different from the diagonal, which it is, then there is no contradiction.

There is no mathematically valid model in which the limit of the sequence of staircase functions is anything but the diagonal function.

If TO wished to claim otherwise, then he must create and present to us the entire system in which he claims his allegations hold, as they do not hold in any current system.

Well, do you agree that /if/ the limit of the staircase is /not/ "anything different from" the diagonal, then there /is/ a contradiction?

Of course. If there were not distinguishing characteristics between the diagonal and the staircase in the limit, or some other explanation for the discrepancy, then I would have to admit that you may have a real counterexample to refute the validity of infinite induction.

And in standard mathematics there are no such distinguishing characteristics. I have, in fact, given a specific and concrete example of the staircases as parametric functions of the diagonal distance whose limit is the diagonal itself.

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However, the differences I pointed out not only serve as a probable cause of the discrepancy, but lead to an exact quantification of what the discrepancy is.

Except that they provably do to hold in any standard mathematics, and TO has not produced any other system in which they do hold.

But I have /defined/ the limit of the staircases and the diagonal as /sets/ which are identical.

Sets of points, which do not lend themselves to additive measure.

They are sets which have well defined arc lengths in the only sense that any set of points is allowed to have an arc length in standard mathematics. Where is TO's definition of the 'arc length of a set of points' which is self-consistent.

Well, obviously, now I have to define a measurable limit definition for sets of "points", on top of everything else. Fine, it's on my list.

Until it is done, TO is wrong.

And that's what I mean when I say, your knowledge of what constitutes a mathematical argument is sorely lacking; particularly your knowledge of what a mathematical definition is.

Uh huh. When I point out exactly why the measure fails, including how the error is calculated, I don't know anything about making a mathematical argument. But, when you use a definition of limit which doesn't lend itself to linear measure, and then blame the fact that the measure of the limit isn't correct on infinity, for vague reasons, that's a mathematical argument? Where do YOU think the error

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ratio of $\sqrt{2}$ comes from? Infinity?

Everyone following these posts except TO knows where it comes from. The error comes directly from TO's insistence on his false "principle of infinite induction".

That's a very sound
mathematical argument, if ever I heard one.