

Re: infinity

Source: <http://sci.tech-archive.net/Archive/sci.math/2005-10/msg00152.html>

- *From:* "Ross A. Finlayson" <raf@xxxxxxxxxxxxxxxxx>
 - *Date:* 2 Oct 2005 22:52:58 -0700
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Jonathan Hoyle wrote:

>>> Jonathan, have you read the extent of Martin's work? What do
>>> you really know about it, besides brief descriptions that get
>>> poopooed here automatically?
>
> I know nothing about Martin's work, other than what he has posted here.
> I believe that his work could be revamped into something the
> mathematical community would accept, and I outlined such a path in a
> previous post. Essentially, begin with ZFC and remove the Axiom of
> Infinity, and replace it with another axiom related to his area of
> study. Such an approach would require Martin to be much more rigorous
> in his arguments than he has so far. But the moment you begin this
> whole silly "Cantorian" fight, you will not be taken very seriously.
> It would be similar to say an astrologer attempting to publish "the
> effect of Mars on Pisces" in a astro-physics journal.
>
> I think Martin could contribute something mathematically. My point was
> merely that his current thesis would not be taken seriously by
> mathematicians. So, I provided places that could take it seriously.
>
>>> I am not sure you are in a position to judge, are you?
>
> Judge? I am not a editor on submissions at a mathematics journal, if
> that's what you mean. However, any Mathematics grad student (and many
> undergrads for that matter) would see what I see. Anyone posting on
> the web is essentially submitting their ideas for public peer review.
> Instilling false hope is not doing a kindness.
>
>>> He should expect resistance, but should he expect failure?
>
> If his thesis remains unmodified, yes, he should expect failure from
> mathematics journal. There are places where he will not find failure.
> However, a modified (ie more mathematically rigorous) approach could
> granted him success.
>
>>> Yes, position yourself against the mathematical community,
>>> then they will embrace you.
>
> No they will not, that's my point. Crank physicists who wish to

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- > "battle Einsteinian theory" have the same problem. So do crank
- > geologists who believe in a Flat Earth. And so it goes.
- >
- >>> Oh nice. Go join the crank club. Pretty condescending,
- >>> if you ask me.
- >
- > I was merely pointing out a resource in which other like minded
- > individuals can be found. In particular, the Cantor page at
- > <http://www.crank.net/cantor.html> has a link to an article by Professor
- > Wilfrid Hodges talking about the two dozen papers submitted him by
- > people who try to disprove Cantor, and why such papers are
- > unpublishable.
- >
- > I'm sorry that you view that as condescending, but the reality is:
- > papers such as these will not be accepted by the mathematics community.
- > They are dismissed, NOT because they are contraversial, but rather
- > because they are not mathematics.
- >
- > Hope that helps,
- >
- > Jonathan

Ha ha ha ha. Ohhh... getting pretty wicked there.

In Hodges' paper there is at least one plain logical error. Should he have to correct that? Hodges addresses plain ol' logical errors, not the thousands and thousand of pages of superspecific technicalities about transfinite cardinals or infinity as, for example, appear in the vigorous debates among interested parties here in sic.math.

There are theories, for example anti-foundational theories, where Cantor's results about powersets and basically the missing element OR requirement for dual representation do not generally hold. Is Aczel a crank, Jon?

ZF is inconsistent, where quantification over sets implies a universal set. Then, if you're sophisticated about set theory, then there is the concern of Russell, and Ord, Burali-Forti, a paradox in ZF.

Einstein is really great. Over on sci.physics the word is that if AI's experiment non-nulls then that is a "metric gravitation equivalence principle" violation and just as Newton's laws of motions are basically true, and Einstein's Special and General Relativity are basically true, they're not the end-all-be-all. If Einstein never passed Newton, then there'd be no Einstein, and Einstein never heard of Quantum Chromodynamics or Gauge Theory. I'm not sure, he might have heard about that, because Einstein was around until around 1955.

The universe is infinite, and, infinite sets are equivalent, otherwise the universe would not exist. So, a simple physical experiment called existence shows infinite sets equivalent.

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Sarfatti recently posted about how that might be some fringe physical theory, that the universe is its own powerset. Sarfatti is definitely fringe.

Why do I say that choice is a theorem of ZF? Is it because for each cardinal there is an ordinal?

Well-order the reals. Extend Cantor's first, "nested intervals", to any well-ordered set bijecting with the reals. Now, well-order the reals.

Skolemize... once for each ordinal. Your model of a theory is countable. What's the class of all classes? Models are to classes as theories are to sets.

Cantor's results are there, so to progress beyond them it would be a post-Cantorian theory.

Hoyle, transfinite cardinals aren't useful. I'd be interested to know some way that they were useful, keeping in mind that I don't think they're right for measure, probability, computability and bounds, etc. Now Leibniz infinitesimals, with there being as many between zero and one as there are naturals, those are useful. So, Einstein, bring forth the utility of transfinite cardinals.

Infinite sets are infinite. Infinite sets are equivalent.

Good day,

Ross

• **Follow-Ups:**

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◇ From: Jonathan Hoyle

• **References:**

◆ **Re: infinity**

◇ From: Jonathan Hoyle

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