

Sigh

The Urth list — 15 messages, 5 voices, 12 Jan 2011

<https://urth.darkrealm.vip/thread/urth/5892>

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Lee Berman — 12 Jan 2011, 01:34

Antonio: > Space-time is a strange place. Observers may be looking at their own star system far, far away.

Jeff: When else do we see this happen?

I'd say we see something sort of similar when Severian is about to enter Yesod. Because of the curvature of space-time (as Malrubius explained) he sees both the beginning and the end of the universe in the same place.

Then again we can always mistrust the astronomy of a technologically backward planet like Blue full of 300 year isolates from the Whorl. (who was it that claimed to know which red sun in the sky was Urth's? I forget).

I'm still enjoying Marc's evidence that Lune is planet-sized and has an atmosphere. Hey, if Urth can have the Andes on the east coast of S. America, the moon could be extra-large.

Still I think Jane makes a good point about planetary conjugation. Blue and Green do not seem to orbit each other.

Jeff Wilson — 12 Jan 2011, 02:01 · in reply to Lee Berman

On 1/11/2011 7:34 PM, Lee Berman wrote:

Antonio:> Space-time is a strange place. Observers may be looking at their own star system far, far away.

Jeff: When else do we see this happen?

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Perhaps, but this only allows bi-location of objects with lifetimes nearly that of an entire manvantara, at least trillions of years, while moving faster than light somehow. Blue and Green's system doesn't do this, nor would it last as long.

Jeff Wilson - jwilson at io.com
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< <http://www.tamut.edu/CIL> >

Lee Berman — 12 Jan 2011, 02:33 · follows Jeff Wilson

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Yes, I would agree. I was only trying to answer that question with regard to Antonio's statement. (fwiw, Borges' Library also fits the bill). I would say that those of us who are trying to follow Marc's theory may need to rely on the "poor astronomy on Blue" corollary to see it through.

Jeff Wilson — 12 Jan 2011, 03:04 · in reply to Lee Berman

On 1/11/2011 8:33 PM, Lee Berman wrote:

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Borges' Library? Do you mean the Aleph? How is either one incorporated into the context of the Sun cycle?

Jeff Wilson - jwilson at io.com
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Adam Thornton — 12 Jan 2011, 04:12 · in reply to Jeff Wilson

On 01/11/2011 09:04 PM, Jeff Wilson wrote:

Borges' Library? Do you mean the Aleph? How is either one incorporated into the context of the Sun cycle?

Ultan's library occupies some space between (in a mythical sense) Borges' Library of Babel and Borges' National Library.

Adam

Lee Berman — 12 Jan 2011, 04:19 · follows Adam Thornton

Jeff Wilson: Borges' Library? Do you mean the Aleph? How is either one incorporated into the context of the Sun cycle?

Should have said Borges' Library of Babel. WOrth a read. Was probably an influence on BotNS cosmology. http://jubal.westnet.com/hyperdiscordia/library_of_babel.html

Jeff Wilson — 12 Jan 2011, 05:19 · in reply to Adam Thornton

On 1/11/2011 10:12 PM, Adam Thornton wrote:

On 01/11/2011 09:04 PM, Jeff Wilson wrote:

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Ultan's library occupies some space between (in a mythical sense)
Borges' Library of Babel and Borges' National Library.

That's fine, but we need a literal antecedent for the see-around-corners thing to be a natural feature of space-time.

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Adam Thornton — 12 Jan 2011, 06:09 · in reply to Jeff Wilson

On 01/11/2011 11:19 PM, Jeff Wilson wrote:

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On 01/11/2011 09:04 PM, Jeff Wilson wrote:

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na

Does the supposition in "The Library of Babel" that, if you were immortal and went in any direction long enough, you'd eventually encounter the same books in the same disorder, which would thereby become The Order, count?

I've been doing a little meditative combinatorics. I arbitrarily assigned the length of the printing on a book's spine (which the Librarian does not tell us) to be one 80-character line. With that assumption (and ignoring the Librarian's unsupported supposition that the titles are meaningless), we find that there are approximately
 $1.3383768226039 \times 10^{1834209}$ books in the Library. (I've used the freely available "hypercalc" program, <http://mrob.com/pub/perl/hypercalc.txt>, in this meditation.)

But of course the supposition that you'd come, when you began seeing books you had already encountered, upon the same Library in the same order, is delusionally optimistic. There are, of course, the factorial of the number of books number of orders of each book in the library. That turns out to be roughly $10^{(2.4548624015714 \times 10^{1834215})}$ libraries before one must, perforce, begin seeing the books in an order in which one has before seen them. It is *this* collection, of course, that must contain the wonders the Librarian speaks of, such as the true catalogue and all the false catalogues, because a single book is clearly far too small to contain such a thing.

But of course that, in turn, assumes that all the copies of the library are complete. If we then postulate that any iteration of the library may or may not have a copy of a particular book then the number of (complete and partial) libraries our immortal traveler must traipse through before encountering repetition becomes the power set of the number of complete libraries, or $2^{(10^{(2.4548624015714 \times 10^{1834215})})}$. This, rightly, seems like a big number.

But, in fact, to an arbitrarily good approximation, *all* integers are bigger than that.

Indeed, if we adopt even a naive encoding for the books of the story, "01" for the first character through "25" for the last, and simply endeavor to transcribe the set-of-all-books-in-all-libraries-in-each-possible-order as an integer encoded this way...then there is probability zero that this number does not appear somewhere in the decimal

representation of pi. So all our wandering is for naught: we could just sit crosslegged and contemplate, very closely, a ring.

Adam

Lee Berman — 12 Jan 2011, 13:15 · follows Adam Thornton

Jeff Wilson: That's fine, but we need a literal antecedent for the see-around-corners thing to be a natural feature of space-time.

Sure. Let's remember that explanation for seeing the Red Sun from Blue was Antonio's. I only brought up Borges' Babel Library as a contribution to discussion of that theme. Adam Thornton's reverie on the matter is along the same lines.

I think bad astronomy makes a better explanation to rescue Marc's theory than a localized space-time warp.

Jeff Wilson — 12 Jan 2011, 15:09 · in reply to Adam Thornton

On 1/12/2011 12:09 AM, Adam Thornton wrote:

On 01/11/2011 11:19 PM, Jeff Wilson wrote:

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Does the supposition in "The Library of Babel" that, if you were immortal and went in any direction long enough, you'd eventually encounter the same books in the same disorder, which would thereby become The Order, count?

If you can show me where it is incorporated into the context of possibly observable by the fictional characters of the Short Sun books, sure. For example, stuff that happens in the Amber books could excusably happen in the Vlad Taltos books, because Steven Brust incorporated Corwin's hellride encounter with a horseman in grey as the grey-wearing Vlad's encounter with Corwin.

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António Pedro Marques — 12 Jan 2011, 15:16 · in reply to Jeff Wilson

Jeff Wilson wrote (12-01-2011 15:09):

On 1/12/2011 12:09 AM, Adam Thornton wrote:

On 01/11/2011 11:19 PM, Jeff Wilson wrote:

On 1/11/2011 10:12 PM, Adam Thornton wrote:

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What if the whole universe is a kind of Moebius strip? Has that currently been ruled out?

Jeff Wilson — 12 Jan 2011, 15:26 · in reply to António Pedro Marques

On 1/12/2011 9:16 AM, Ant?nio Pedro Marques wrote:
Jeff Wilson wrote (12-01-2011 15:09):

On 1/12/2011 12:09 AM, Adam Thornton wrote:

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What if the whole universe is a kind of Moebius strip? Has that currently been ruled out?

Yes, because stars don't last long enough for their own light to traverse the universe and arrive before they've gone on to non-life sustaining dispositions. The Yesodi's could do it though, and I entertained a "Planet of the Apes" scenario for the Whorl's return to Urth for a while.

Jeff Wilson - jwilson at io.com
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Jeff Wilson — 12 Jan 2011, 15:46 · in reply to Adam Thornton

On 1/12/2011 12:09 AM, Adam Thornton wrote:

But of course that, in turn, assumes that all the copies of the library are complete. If we then postulate that any iteration of the library may or may not have a copy of a particular book then the number of (complete and partial) libraries our immortal traveler must traipse through before encountering repetition becomes the power set of the number of complete libraries, or $2^{\left(10^{\left(2.4548624015714 \times 10^{1834215}\right)}\right)}$. This, rightly, seems like a big number.

But, in fact, to an arbitrarily good approximation, **all** integers are bigger than that.

Really? I would've said a bit less than half.

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Adam Thornton IO — 12 Jan 2011, 18:42 · in reply to Jeff Wilson

On Wed, 12 Jan 2011 09:46:10 -0600, Jeff Wilson <jwilson at io.com> wrote:

On 1/12/2011 12:09 AM, Adam Thornton wrote:

But of course that, in turn, assumes that all the copies of the library are complete. If we then postulate that any iteration of the library may or may not have a copy of a particular book then the number of (complete and partial) libraries our immortal traveler must traipse through before encountering repetition becomes the power set of the number of complete libraries, or $2^{\left(10^{\left(2.4548624015714 \times 10^{1834215}\right)}\right)}$. This, rightly, seems like a big number.

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Really? I would've said a bit less than half.

I'm positive.

Or rather, I should have specified positive integers.

Adam

Dan'l Danehy-Oakes — 12 Jan 2011, 18:45 · in reply to Adam Thornton IO

On Wed, Jan 12, 2011 at 10:42 AM, Adam Thornton (IO) <adam at io.com> wrote:

But, in fact, to an arbitrarily good approximation, **all** integers are bigger than that.

Really? I would've said a bit less than half.

I'm positive.

Or rather, I should have specified positive integers.

Not necessary -- "big" can mean "of great magnitude," in which case the large negative integers are "bigger than that" also.

Dan'l Danehy-Oakes