

Re: Implementable Set Theory and Consistency of ZFC

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- *From:* Han de Bruijn <Han.deBruijn@xxxxxxxxxxxxxxxx>
 - *Date:* Thu, 01 Nov 2007 13:52:35 +0100
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David C. Ullrich wrote:

On Thu, 01 Nov 2007 10:03:34 +0100, Han de Bruijn
<Han.deBruijn@xxxxxxxxxxxxxxxx> wrote:

MoeBlee wrote:

On Oct 31, 1:59 am, Han de Bruijn
<Han.deBru...@xxxxxxxxxxxxxxxx> wrote:

Jesse F. Hughes wrote:

I will say it once more. I am
typing this slowly, since I
don't want
you to miss anything I say.
If you have a proof in a
theory
consisting of axioms
(1)–(4), it is also a proof in
the theory
consisting of axioms
(1)–(4)+(X).

How do you "know" that? Has the Pope told
you, by dogma, that it is so?

No, you royal ignoramus, it's PROVEN as a basic property
of the
deductive system. It's the property of monotonicity of
deduction. And

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we PROVE it.

Yeah, yeah. Then why are (5–9) required in ZFC, once Infinity has become an axiom of it? Why is e.g. Choice provable in (ZFC–Infinity) and not in common ZFC?

This has been explained several times. If by ZFC–Infinity you mean ZFC without the axiom of infinity then Choice is not provable in that system. "ZFC without the axiom of infinity" is not the same as "ZFC plus the negation of the axiom of infinity" – choice is provable in ZFC plus the negation of the axiom of infinity.

Sure. (ZFC – Foo) is not the same as (ZFC – Foo + ~Foo). Quite clear. Tip, hint: how can Foo be "denied" iff Foo is just plain nonsense in the first place? But there is more.

Because (apples without pears) is not the same as (apples without pears and (no pears)). And I am so stupid that I don't understand this? Wow!

But ZFC does not consist of "ZFC plus the negation of Infinity" plus more axioms (it is equal to "ZFC without Infinity" plus more axioms).

Han de Bruijn

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