

Re: Real mathematics vs FOL

Source: <http://sci.tech-archive.net/Archive/sci.logic/2006-11/msg00242.html>

- *From:* "Mark Tarver" <dr.mtarver@xxxxxxxxxxxxxxxx>
 - *Date:* 9 Nov 2006 16:53:18 -0800
-

The Axiom of Separation in Z-F set theory cannot be expressed in FOL.

Mark

biubo wrote:

"Nam Nguyen" <namducnguyen@xxxxxxx> ha scritto nel messaggio
[news:CO14h.279803\\$5R2.37203@xxxxxxxxxxxxx](mailto:news:CO14h.279803$5R2.37203@xxxxxxxxxxxxx)

biubo wrote:

"Nam Nguyen" <namducnguyen@xxxxxxx> wrote:

biubo wrote:

I have two questions:

1) Can you show me some mathematical results which cannot be translated into first order logic?

2) I remember that once I read on a book of Ebbinghaus, Flum, Thomas that in f.o. logic you can not define the concept of torsion group.
Is the theory of torsion groups out of the scope of FOL ?

It would be helpful if you could give some ideas as to what you think "real mathematics" should be.

the common mathematics, the one that you can do without knowing much

Re: Real mathematics vs FOL

about logic.

OK. In that sense then I don't know much about 2) but regarding to 1), at least SR cannot be faithfully translated into FOL. (Think about the impossibility of formalizing the relativity of events' simultaneity.)

Thank you for the reply, but I was not interested in physics, I asked some result of pure mathematics.