

Re: Real world and mathematics

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- *From:* Angus Rodgers <twirlip@xxxxxxxxxxx>
 - *Date:* Sat, 26 Jul 2008 19:02:08 +0100
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On Sat, 26 Jul 2008 10:16:03 -0700 (PDT), "porky_pig_jr@xxxxxxxxxxx" <porky_pig_jr@xxxxxxxxxxx> wrote:

On Jul 25, 4:37 pm, Angus Rodgers <twir...@xxxxxxxxxxx> wrote:

V. I. Arnol'd, What is mathematics?, (MCCME, Moscow), 2002, Russian

So, when you wrote of Arnol'd, ``See his book "What is mathematics".'', just what did you mean? I'm puzzled.

I guess that's what I've meant. ISBN 5-94057-090-9. I'm not sure if it's translated into English, though. :-)

Damn. (I have enough difficulty just remembering any of the French, German or Latin I used to know.)

I was browsing through that book, than took a break, checked the usenet and saw **that** posting.

The book deals with the question whether mathematics is the "bunch of consequences of some arbitrary axioms or it is a branch of natural sciences and theoretical physics" (quoting Arnold). IMHO, the axioms of maths are not as arbitrary as Arnold's straw man – pure mathematician claims, and yet that does not follow that maths is a branch of physics. Rather both math and physics (and other natural sciences) are part of human activities (or human intelligence); roughly speaking, the humans that produce both maths and natural sciences are the same humans, with the same limitations and the same way of reasoning, hence no one should claim that math and natural sciences are completely insulated from each other. There is always some interaction going on. Yet it does not necessarily follow that maths is a branch of physics or natural sciences in general.

Re: Real world and mathematics

I agree that it seems to be a false dichotomy, a bit like "either everything is meaningless, we're all just a bunch of atoms, and there is no difference between right and wrong – or else Jesus Christ died for your sins, God loves you, and homosexuals are all evil and will burn in hellfire for eternity." :-)

The book, by the way, *is* fun to read, and in fact Arnold gives substantially complex picture than one can guess by reading just the first couple of paragraphs from his book.

I get the impression that he has a very interesting perspective on the field. Also, he's a Wolf prizewinner, and he solved Hilbert's 13th problem at the age of 19 (or was it Hilbert's 19th problem at the age of 13?) – so I think it's safe to say that he's no slouch, no outsider crying in the wilderness, and no despiser of rigour (or indeed abstraction or generality) – just Bourbaki, it seems.

—

Angus Rodgers
(twirlip@ eats spam; reply to angusrod@)
Contains mild peril

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