

Review of: "Mathematics Is Physical"

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Wu's paper "Mathematics is physical" firstly links Goedel's incompleteness result with the human brain limitations, that consists of physical limitations. Secondly, he recalls how quantum physics has made enormous progresses since Goedel's time and hence, he suggests us, we should expect that quantum computers can provide us with new mathematical theorems that no human could ever prove.

That computer provide us with proofs that no human could ever perform is already a fact, and this is obvious, because even if a proof is finite, it is not sure that a man could produce it step by step: human beings not only cannot afford infinite steps, but also a high number of finite steps. For instance, the proof of four colors theorem has been given with the essential aid of a computer (even if it was not a quantum computer), and it is impossible for humans to check each step of it.

Hence, the paper doesn't seems to assert anything new, still it shows a useful stress to the fact that mathematical proofs depend on the concrete feasibility (ours and that of the machines), even if it is a discipline that gives us the feeling to get in touch with an abstract, paradisiac realm.