

Naked Genius

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<https://www.youtube.com/watch?v=E2hZDzJp9Pc>

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Abstract

Here we discuss tidbits of information in Japanese concerning Shinichi Mochizuki's controversial tetralogy..

Shinichi Mochizuki's controversial [<https://www.nature.com/articles/d41586-020-00998-2>] tetralogy on inter-universal Teichmüller theory has been published [<https://zbmath.org/?q=an%3A1465.14002>, <https://zbmath.org/?q=an%3A1465.14003>, <https://zbmath.org/?q=an%3A1465.14004>, <https://zbmath.org/?q=an%3A1465.14005>]. Mathematically speaking, I have nothing to add to Peter Scholze's unequivocal review [<https://zbmath.org/pdf/1465.14002.pdf>].

Since I am a Japanese living in Japan, I will discuss here tidbits of information in Japanese about Mochizuki's tetralogy . First I would like to discuss how Japanese newspapers for general public reported this issue. Japanese newspapers publicized this at least three times.

- I** (April 2020) Mochizuki's tetralogy was accepted for publication in Publications of the Research Institute for Mathematical Sciences, which is published by European Mathematical Society.
- II** (November 2020) Mochizuki's tetralogy would be published as a special issue in Publications of the Research Institute for Mathematical Sciences in 2021.
- III** (March 2021) Mochizuki's tetralogy has just been published.

Of course, each publication was decorated with such applauding expressions as "historical achievement in mathematics". I feel somewhat uncomfortable, wondering why this matter should have been picked up three times in Japanese newspapers for general public, for I have seen such great achievements as the settlements of the four color problem (by Appel and Haken), of Fermat's conjecture (by Wiles), and of the Poincaré conjecture (by Perelman) picked up only once in Japanese newspapers for general public.

In III, Akio Tamagawa, a heck of a pious apostle of Mochizukianity and a colleague of Mochizuki at the Research Institute for Mathematical Sciences, gave the following three comments among others.

IV The confrontation concerning Mochizuki's tetralogy will persist forever.

V Counterarguments against Mochizuki's tetralogy have already been exhausted.

VI Professor Mochizuki is keenly aware of logical gaps in his tetralogy.

I agree that the confrontation between Shia Islam and Sunni Islam will presumably persist for perpetuity, but, as far as mathematical discussion are concerned, it is always Logos that can and should decide. In particular, with due regard to the statement VI. I think that the game is already over so that there is no confrontation at all.

Contemporary mathematicians hold firmly, thanks to Cantor and others, that their mathematical discussions could be formalized completely within such an axiomatic set theory as ZFC, though they know well that to do so literally is dauntingly tedious for both a writer and a reader. Recently some researchers on homotopy type theory [<https://zbmath.org/?q=an%3A1298.03002>] not only claim that it is not ZFC but homotopy type theory that provides the foundation of mathematics, but also believe that the day will come sooner or later, when, in submitting research papers for possible publications in academic journals. mathematicians are required to attach a file of complete proofs of their results within homotopy type theory, which are prepared man-machine-interactive way, just as we now attach a Tex file of the paper in submission in academic journals. I am not sure whether the day will really come in decades, not to say in years, but I am sure that such a fuss as Mochizuki's tetralogy has caused could never occur on that day. I have never imagined that the phantom of Trofim Denisovich Lysenko (1898-1976, a Soviet agronomist and biologist) should roam around the Research Institute for Mathematical Sciences with mathematical guises in the 21st century.

After I-III, a short article in a Japanese newspaper caught my attention.

VII (April 2021, Nikkei) We have tried to find some mathematicians, whether domestic or from abroad, willing to give a (presumably show-stopping) comment on Mochizuki's tetralogy, only to result in vain. Strange to say, every asked mathematician declined.

Now let's look at Mochizuki's blog (in Japanese) as of 5 January 2020. The blog was entitled

VIII *The status report on my tetralogy on inter-universal Teichmüller theory: a story of the miserable blackhole spawned in mathematical society.*

According to this blog, Mochizuki submitted his tetralogy for possible publication in the journal in August 2012. He received a referee's report (five pages, in English) recommending greatly its publication with more or less 20 minor errors pointed out in May 2016. Mochizuki was asked by the journal to submit his tetralogy in final form in September 2017. Mochizuki complained terribly that it took so long to publish his tetralogy. He asked.

IX Why has my tetralogy been left untouched for so long ?

He attributed this delay to

X the terrible malignancy of a certain force of foreign mathematicians who spit out a hodgepodge of irresponsible falsity based on complete misunderstanding of my tetralogy,

What Mochizuki called "miserable blackhole" in the title is the state depicted in IX, which not only irritated Mochizuki but also made him feel it unjustifiable, so that he wrote at the top of the blog as follows.

XI This blog can be regarded as a kind of whistle-blowing.

Mochizuki goes as follows.

XII I have not succeeded in elucidating the mechanism behind this blackhole, though I could guess that the blackhole state might have been caused by the editorial board itself, that this might have been caused by direct coercion of some foreign powers in mathematics via personal connections, that bureaucrats of the Ministry of Education, Culture, Sports, Science and Technology or the administration of Kyoto university were dissuaded by the malignancy of foreign mathematicians against my tetralogy, putting pressure on the journal, and so on.

XIII I do not know at all how the blackhole state was spawned or who the power broker is behind this blackhole, though I think that through certain mechanism the blackhole was due to the interfering activity of a certain force of foreign mathematicians at the epicenter. The force of foreign mathematicians consists of people having bitter malignancy against me and my own research. There are a lot of mysterious parts about the cause of their malignancy, ...

I began by talking about some problem in mathematical society, but I have unconsciously warped into the realm of QAnon [<https://en.wikipedia.org/wiki/QAnon>]. I have begun feeling giddy. I feel that I had better stop writing here and now.