

The Einstein fans acceptance of mathematical nonsense

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Many have pointed out the numerous mistakes of Einstein. But they have been mostly ignored by the mainstream consisting of the Einstein fans. Worse – the Einstein fans have accepted the mathematical nonsense of Einstein and convinced themselves that mathematical nonsense is what physics should be.

David Hestenes tells us (summarising from Arthur I. Miller): "... an important difference between mathematical and physical thinking which goes a long way toward explaining why so few mathematicians have made important contributions to physics in the 20th century. Pure mathematicians do not think about the equations of physics in the same way as a physicist does. They are concerned only with the structure of the equations and the formal rules for manipulating them. But physicists regard the equations as representations of real things or processes; they are only partial representations of the physicists' knowledge, so to improve a representation they may alter the equations in ways that violate mathematical rules."

Me: Note the words "violate mathematical rules" – which means writes mathematical nonsense. The breed of physicists that Einstein inspired was to do the same as him and write mathematical nonsense. Worse this Einstein fan proceeds to say this is the way that physics should be done:

Hestenes: "Both Einstein and Heisenberg were masters at this. Neither was a mathematical virtuoso."

Me: i.e. they were not good at math

Hestenes: Indeed, in the period when Einstein was developing his general relativity theory, the mathematician Hilbert expressed the opinion that Einstein was mathematically naive.

Me: Hilbert was a "genuine" mathematician unlike Einstein. Einstein's fans usually proclaim Einstein a mathematical genius. But a "genuine" mathematician like Hilbert

recognised Einstein was writing math nonsense, and put it mildly as Einstein being “mathematically naïve.”

Hestenes: I have heard a similar opinion about Heisenberg expressed by one of his students in later years.

Me: i.e. Heisenberg bad at math or “mathematically naïve” same as Einstein.

Hestenes: Mathematics played an essential role in Einstein's thinking, but, as mathematical physics goes, the mathematics in all his great papers is comparatively simple. His forte was in analyzing the physical meaning of the mathematics. Indeed, such analysis is generally characteristic of the best work in theoretical physics. I have heard the Nobel laureate Richard Feynman, himself a true mathematical virtuoso, express this opinion forcefully, asserting that the value of a paper on theoretical physics is inversely proportional to the density of mathematics in it.

Me: i.e. Einstein's style of “mathematically naïve” has inspired physicists to be the same. And such Einstein fans as Hestenes mock “genuine” mathematicians by calling people who inspired by Einstein to write mathematical nonsense as “mathematical virtuosos”.

The Einstein fans who believe that mathematical nonsense is the way to proceed in physics serve as a block to those trying to tidy up the mess that Einstein left us. Physics is a mess, made a mess by Einstein. But since Einstein is proclaimed a genius these fans then think the mess is how physics should be.

Reference

SECRETS OF GENIUS : Review of Imagery in Scientific Thought by Arthur I. Miller. Cambridge, MA: MIT Press, 1986. DAVID HESTENES
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