

Miles Mathis November 21, 2023

In my first paper today, we saw Scientific American filing a report on the 25th anniversary of the discovery of dark matter. In a similar fashion, we see *Physics Today* allowing Marissa Giustina to promote again her experiment from 2010-2015 on Bell's Inequality, making it a sort of 8th anniversary report. Giustina and her colleagues reported then and continue to report that their experiment all but laid to rest any local or classical explanation of entanglement, seeming to save the old quantum mechanical interpretation. This seemed necessary in 2010, when the experiment was put together, because QM was feeling a lot of heat. The huge failures had been stacking up for decades and many in the mainstream were questioning the entire edifice. Things really hit the fan in 2009, which is why this experiment was put together in 2010. That is when my paper on entanglement came out, blowing the whole subject from the inside out. That, along with my earlier paper on superposition and my work showing the charge field was real, had been like a body blow to QM and QED, leaving it in tatters. I showed that the entire question of entanglement had been bungled from the very start, due to ignorance of the charge field. Rather than try to discover what was entangling these quanta, the mainstream had simply made some naive field assumptions and then applied their even more naive field math. They couldn't see what was entangling the particles, so they just assumed nothing was. It was the wave function and nothing more, and since the wave function had been defined as a probability, it was probability math causing the entanglement. Unfortunately, even their wave function was faulty, being at least a degree of freedom short, so they never had enough math to solve this, no matter what their field assumptions had been.

A couple of years later I made this even clearer, by pulling apart their ridiculous CHSH Bell Tests and showing the obvious fudges there. Giustina' new experiment is just a slightly fancier form of that, but since the tests were flawed at the logical level no amount of new "loop closing" could make any possible difference. In this experiment, Giustina doesn't even pretend to address any of my points. She just ignores me completely and tries to convince her readers that the old failed argument can be made stronger with new technical tricks and more salesmanship. Her experiment was done in a castle basement in Vienna with a lot of expensive toys and big underwriting, therefore it must be right and I must be wrong.

You can see this in the <u>first paragraph of the paper at *PRL*</u>, where she says

Since Alice could have chosen any possible direction and since there is no interaction between Alice and Bob anymore, one may conclude that the results of all possible measurements by Bob must have been predetermined. However, these predeterminate values did not enter the quantum mechanical description via the wave function.

That is the false assumption that skews the whole experiment. Since they don't understand what the wave function is, they can't comprehend how particles are *entangled by the field*. In other words, the wave function IS causing the predeterminate values, because the wave function is just an expression of the charge density, and the charge field does not end with any distance or speed. The charge field is omnipresent and extends to infinity in all directions. So it was never necessary for the particles to communicate, either with one another or with the source. In a sense, the particles both remain at the source at all times, since the source is the charge field, and they cannot leave it no matter how far they travel. As you now see, the problem was misdefined from the beginning. Because the source of entanglement was not known, the field seemed to be working in magical ways—hence the "spooky" nature of entanglement. But once you are reminded that the charge field is real, ubiquitous, and always local, all the mystery evaporates. Information isn't being carried across empty space, since there is no such thing as empty space.

As I have shown, this also explains tunneling, faster than light communication, and all other mysteries of QM. The speed of transmission only seems infinite because it is not understood that the charge field was already there before the switch was flipped. Flipping an electrical switch doesn't create a charge field, it simply uses it. The scientists just don't understand the endpoint was already receiving information via the charge field before they sent it, so they mistakenly think it is infinitely fast. It isn't infinitely fast, it was just there before they began measuring it. Almost all the mysteries of QM and QED are explained in that way.

To say it another way, these Bell tests, including that of Giustina, are supposed to disprove hidden variables that would be able to explain entanglement with local quantities. But what I have shown is that we don't have hidden variables, we have an entire fundamental field that is hidden or ignored. The charge field is THE fundamental field of the universe, and yet they ignore it in this whole question as if it isn't there. They deny that any hidden variable could explain the spooky nature of entanglement, but that is true only in the case we are dealing with a hidden variable, or more than one. This is because a hidden variable would—by definition—apply to one particle or the other, or both. Therefore, its expression would be necessarily local and limited, seeming to offer no solution. But if what we are dealing with here is not a hidden variable, or even a set of them, but a hidden field, then the whole landscape changes. Obviously, a hidden universal field, of no limit in time or extension, would explain entanglement immediately, with a flip of a switch. And that is exactly what we have. We have a real pre-existing charge field that exists everywhere and is prior to any EM field created. Given that, all spookiness or magic dissolves.

Talking about closing loopholes in the problem at that point is just bluff, since in such a case there are no possible loopholes. At that point the whole problem is proved to have been manufactured from nothing.

For the best explanation of all this, see my 2014 paper on Solid Light, possibly my most important paper of that year. It is in response to Raftery et al's Princeton paper of that time at *PR-X*, but it ties into this whole Bell's Inequality question. If you read that paper, not only will you understand how the charge field works, you will understand why the original idea of entanglement was such a godawful

mess, including Bell's use of it. And once you understand how the charge field works, you will understand that the mainstream hasn't just been wrong for decades, it has been LYING to us for decades. All this stuff is so bad, these top physicists must have known it was crap from the beginning, which means they weren't mistaken, they were FRAUDS. They were purposely protecting bad theory only because it was theirs. They had gotten famous for it, so they didn't care how bad it was. They couldn't tolerate any correction because that would lead to their fall from grace. So all theory after a certain point was just protective. It was the creation of a bigger and bigger wall to protect the previous prizes.

This is what Giustina et al are up to as well. They keep coming back to the same experiments, rerunning them with new machines in fancier buildings with more colleagues, more institutions, and more data points. But the basic set-up remains just as blindingly stupid no matter how they vary it, because they never question their first assumptions or see the big holes in their logic. When someone like me comes along and points out the major flaws in their reasoning, they don't even feel the need to respond. They just ignore it and do the same thing over and over. That is supposed to be the definition of insanity, but it is now the definition of Modern science.

The *cui bono* in the case of Giustina is obvious, since she went from this Vienna experiment directly to Google in 2016, where she joined their Quantum AI Lab, developing quantum computers. This too is a fraud, since I have proved there is no such thing as a quantum computer. It is yet another fraud upon the American taxpayer, who are paying millions to develop something that cannot possibly exist. These computers are based on manipulation not only of these false QM ideas like entanglement, superposition, and tunneling, they are based on fake "virtual" objects like cubits, and on illegal and fanciful ideas like borrowing from the vacuum. The only way computers can get any better is by better use of the charge field, and that will never happen as long as quantum mechanics remains mired in this pit of corruption.