

[return to updates](#)

# BREIT-WHEELER, BROOKHAVEN AND BRANDENBURG

*by Miles Mathis*

*First published August 11, 2021*

I already hit this subject in Feb. 2016, see my paper entitled "[Matter from Light](#)". But the subject is now back in the news.

A reader sent me another mainstream paper to analyze, [this time from ScienceAlert](#). An experiment from Brookhaven lab is now confirming what I have been saying for years: photons can be spun up into electrons or positrons. But rather than admit I am right, these guys have been instructed to try to give credit to Gregory Breit and John Wheeler, who proposed in 1934 that via Einstein's equations light could be converted to mass, creating leptons. No progress since 1934? Typical. Neither Breit nor Wheeler ever explained mechanically how this process worked, or where the extra mass came from, but that isn't stopping anyone. Because those guys were mainstream with the right degrees and I am not, I have to be ignored and the experiment has to be forced to fit their old illogical theories. This despite the fact that my theory is far superior on the face of it, and matches data with no fudging. As you are about to see, the mainstream cannot say that.

To start with, as we have already seen, the Breit-Wheeler theory creates mass only by using Einstein's equations, as in  $E=mc^2$ . The leptons weigh far more than the photons, of course, so that extra mass has to come from somewhere. They jam two photons together, which weigh nothing, and get two leptons, which weigh about  $0.511 \text{ MeV}/c^2$  apiece. Using Einstein's equation implies the new mass comes from velocity, with the photon's velocity  $c$  becoming the lepton's mass somehow. In the energy/mass conversion, the photon's energy is defined by its velocity  $c$ , as in the equation  $E=hc/\lambda$ . So the mass of the created lepton has to come out of  $c$  somehow.

But I have shown none of that is necessary. Einstein's equations still work, but they should be used only to find quantities. They shouldn't be used to create theory, since that theory is wrong. Physicists have used Einstein's equations to imply a certain mechanics, but the equations are just equations: equations can't give you the mechanics—you have to figure that out on your own. Einstein admitted that himself. Why do you think he continued to work on these field problems decades after he supplied the equations? Yes, in Einstein's equations it *looks like* the new energy is coming out of  $c$ , but you can't build theory from equations or from appearances—how equations look. That is upside down. You should build equations from theory. You should have the mechanics first and then create the math from that. Inducing mechanics from equations is always a mistake, and I have proved that over and over by showing how the mainstream always messes it up.

In this case, the Einstein and Breit-Wheeler theories fail because they take no account of spin. It is known that all particles spin, and was known even then, but none of the mainstream theories of light take that into account. Not only is the photon given no real spin, it is given no real mass. Without

those real parameters, there is no way to solve this problem, which is why they had to try to solve it by fiat—by skipping mechanics and just inducing a poor solution out of their shorts.

We see lots of proof of that in this article from 2021, which is wildly inconsistent. Here is one example:

**The team used gold ions, which contain 79 protons, and a powerful charge. When gold ions are accelerated to very high speeds, they generate a circular magnetic field that can be as powerful as the perpendicular electric field in the collider. Where they intersect, these equal fields can produce electromagnetic particles, or photons.**

The fields produce photons? How and why? The mainstream will give you a tortured answer, and they have to torture it because they don't realize the nucleus is channeling photons all the time. No photons are “produced”. Heavy photon fields are there all the time, *since that is what charge is*. They are normally in the infrared, so the mainstream always mistakes them for heat and ignores them. So that one paragraph is proof the mainstream has no idea what is going on at the quantum level, especially regarding charge. If they don't know that, how can they possibly use this experiment to solve this problem? Here's more proof of that:

**"So, when the ions are moving close to the speed of light, there are a bunch of photons surrounding the gold nucleus, traveling with it like a cloud," Xu explained.**

But ions and nuclei don't have to be moving fast for that to be true. It is always true, even when they are sitting still. There is a heavy charge field surrounding every nucleus at all times, even if it is said to be neutral. The difference is, if the gold nucleus is still, and you bring two nuclei together slowly, the charge streams don't have enough energy to create magnetic reconnection. The whole point of this new experiment is that they are creating magnetic reconnection, and they don't even seem to be aware of it. To create magnetic reconnection, you need very high photon densities, and slow-moving ions don't provide them. Beyond the nuclear border, densities drop off very fast, so if you want magnetic reconnection, you have to use the ambient field as well. By ambient field, I mean photons not already in the nuclear vortices. The Earth has a heavy ambient field of charge, and by accelerating the particle you are pushing it through more of that ambient field during each  $dt$ .

Which means that every true instance of magnetic reconnection is a creation of leptons from photons. This happens all the time, both in Nature and in the lab. I have shown many instances of it in previous papers. [It is happening with aurora creation](#), as we saw recently. [It is happening on Enceladus](#) and in the upper atmosphere of Uranus. It is happening on the surface of our own Moon. But since these people haven't realized that, they think lepton creation is difficult. They think they need gamma lasers to create it with confidence. They don't. Their high-energy toys already create leptons all the time.

So what they are doing here is creating magnetic reconnection, which is just photons being forced together by high energies and densities, where they suffer a lot more REAL edge hits. Those edge hits spin them up, and once the tangential velocity of the outer spin hits  $c$ , [the particle has to stack on another spin in order to continue gaining energy](#). That is what superposition is. The radius of that new spin is  $2x$  the inner one, and the spin direction is orthogonal to the inner one, taking it beyond the gyroscopic influence of the inner one. The particle has just increased its energy and radius, which is what we call a mass increase. So, as you see, it isn't the velocity that has become the new mass, as with Einstein and Breit-Wheeler, it is mainly the spin. Yes, the high velocity was a pre-requisite for the event, but the velocity is not *becoming* the mass by some sort of magic. It is the new spin that is giving us the new mass in the equations, not the velocity.

And if you want to be even more precise, the energy isn't really coming from either the velocity or the new spin. The higher velocity and the new spin *yield* a higher mass, but the energy for the new velocity and spin are not coming from nowhere, or from the vacuum. They are coming from the ambient field. These discrete particles we are focusing on here are taking their new energies and masses from the surrounding field of photons. If you really want to know where the new mass of the new leptons is coming from, the answer is that it is coming from the ambient charge field. To accelerate these gold atoms, these scientists had to use a generated field, which they generated by manipulating local energy, all of which ultimately came from the ambient charge field. It came from photons already in the area. As their gold atoms accelerated, they were accelerated by local charge, and as the gold gained energy the local charge lost it. Energy was conserved, with none borrowed from the vacuum. It wasn't borrowed from the vacuum, it was taken from the ambient charge field.

I have to again point out how perverse it is that mainstream physicists still don't know about the ambient charge field of the Earth, more than a century years after Tesla used it to such great effect, and drew their attention to it directly. It is nearly beyond belief that mainstream physicists are still talking about vacuum energy, zero-point energy, or virtual particles in the year 2021. Once you know about the ambient charge field of real photons with real masses and radii, you don't need any of those other ideas.

But it gets worse:

**However, it's not enough to just detect an electron-positron pair, either.**

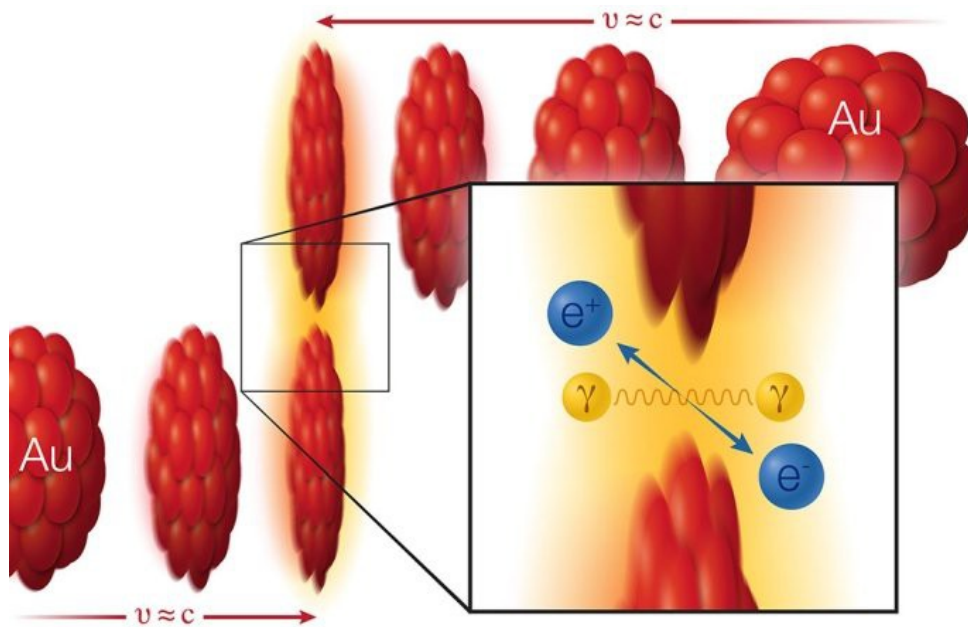
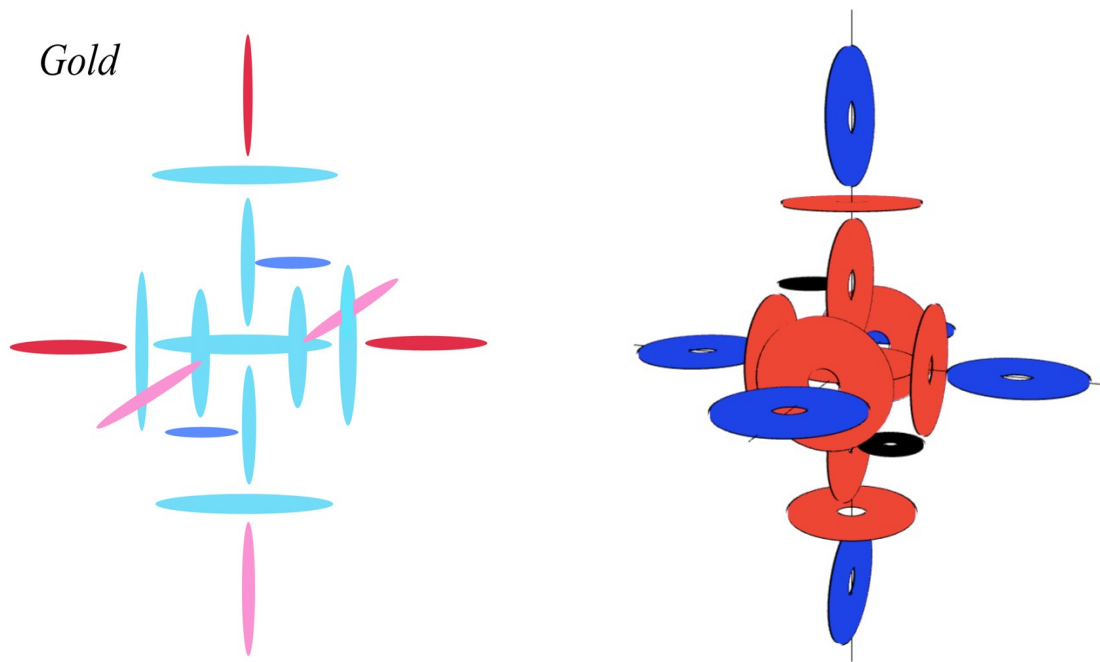


Diagram showing how the near-miss of gold ions produces photon collisions. (Brookhaven Lab)

That's because the photons produced by the electromagnetic interaction are *virtual* photons, popping briefly in and out of existence, and without the same mass as their 'real' counterparts. To be a true Breit-Wheeler process, two real photons need to collide - not two virtual photons, nor a virtual and a real photon.

So the gold nucleus looks like a raspberry, with no structure at all? Just an undifferentiated blob? Actually, no. As I have shown, its diagram looks more like this:



The second diagram is of Tin, created by one of my readers, showing you a bit better what the disks are meant to represent as a matter of architecture in my simpler diagram. That allows us to see how the nucleus is a charge engine, and to follow the charge channels. [See this paper](#) for much more on nuclear architecture and my method of diagramming it. Given that I know that and they don't, it is beyond belief these guys are promoting Breit and Wheeler from almost 90 years ago and ignoring me. Someday it will be seen as the greatest tragedy in the history of science.

But that isn't all. They tell us that the photons produced by the accelerated gold are virtual. Based on what? Based on nothing. Or, based only on the fact they are trying to save the standard model here. The books and famous physicists have been pushing this virtual photon nonsense for decades, to save their previous theories and math, so the guys at Brookhaven can't just overwrite that here. They have to *conform*. Problem is, the Breit-Wheeler process works only on real photons. So to address that little problem, they have to perform some more embarrassing verbal gymnastics, whereby virtual photons can “behave like” real photons at relativistic speeds.

That doesn't really solve that problem does it? Does “behave like” mean “is”? If virtual photons behave like real photons, does that mean they are real photons? If I behave like a girl, am I a girl? No, wait, I'm sorry, according to current rules, it *does*. If I behave like a girl and call myself a girl, I am perforce a girl. So these Brookhaven guys must be right: virtual photons can become real photons, saving the Breit-Wheeler theory, just by behaving like real photons. Whew, that was close.

As if that weren't icky enough, our woke people at Brookhaven then pretend that different angles they are seeing in this experiment apply variously to virtual photon collisions and real photons collisions. They assign one angle to a virtual/virtual collision and one to a real/real collision.

It couldn't be that not all these photons have the same energy, could it? It couldn't be that the charge field of the gold atoms is colliding with the ambient charge field, and that the ambient charge field contains photons of different energies, explaining the different angles? No, that is entirely too logical. So it must be that virtual thing again.

We see more inconsistency here:

**That's because the photons produced by the electromagnetic interaction are *virtual* photons, popping briefly in and out of existence, and without the same mass as their 'real' counterparts.**

Wait. Are they now admitting that photons have real mass? For decades we were taught that photons had zero mass, to save all the operators and matrices. But now we are being told that virtual photons and real photons in the same experiment and created by the same process have different masses? How and why? How does this not blow the entire standard model? Clearly, the author here will just say anything she likes, I guess because she figures you won't question it. No one but me ever has, and I don't exist, you know.

It's pretty hard to believe that either Daniel Brandenburg or Zhangbu Xu, both quoted in the article, passed this announcement for release. I guess they have as little respect for your intelligence as the author, Michelle Starr. This might be because Daniel is really James [Brandenburg](#), of the Princes of Brandenburg who became the Kings of Prussia and the German Kaisers, including Kaiser Wilhelm. As you remember, Wilhelm's mother was Princess Victoria, daughter of Queen Victoria. The Kaisers also link us back to George I. Wilhelm II's son married a Mecklenburg, and we just saw them on my other site [in my paper on Rommel](#). Rommel was a Mecklenburg through the von Luz line. So my guess is Daniel Brandenburg is closely related to the current Queen. I couldn't find a bio of this Daniel Brandenburg, but the royal Brandenburgs did come to the US. [They are now in Southampton, NY](#). They have been there since [Alfred, Prince of Prussia](#), moved there sometime before 1984, when his marriage there occurred. Let's see, where is Southampton? That would be Suffolk Co, NY. Where is Brookhaven laboratory? That would be Suffolk Co, NY. Just another mad coincidence, I'm sure. Daniel the physicist didn't have to travel far from home to find work, did he? These people like short commutes, as we know.

I believe [this is the Southampton castle Alfred lived in](#). You can buy it now for just \$75 million, if you are so inclined. The Brandenburgs aren't the only German nobility living in Southampton, just so you know. The Solms-Laubachs also live/lived there. [See Countess Angelina Solms-Laubach](#), who just married Joachim, Prince of Prussia, in 2019. She was born in Southampton in 1983.

Also strange is that although Brandenburg is quoted in the press releases, making us think he is a first author, he isn't. If you click on his name at PRL, you don't even get a history or any citations, just a blank page. That appears to be because he is a postdoc, working at Brookhaven since 2018. So why is Brandenburg being allowed the glory here? Now you know.

That should be more than enough to peg this announcement as the fraud it is, but let's take a quick look at the actual paper at PRL. The first sentence of the abstract is

**The Breit-Wheeler process which produces matter and antimatter from photon collisions is experimentally investigated through the observation of 6085 exclusive electron-positron pairs in ultraperipheral Au+Au collisions at  $\sqrt{s_{NN}}=200$  GeV.**

As usual, these scientists appear to have forgotten what an abstract is. An abstract should be a non-mathematical overview of the paper, preparing you for the findings within it. It should not make any assumptions, beg any questions, or be obviously circular. It should never assume what it is trying to prove and should not prejudicially promote a viewpoint. But mainstream papers always now assume what they are trying to prove, and they usually do it in the first sentence of the abstract, as here. They are already calling this a Breit-Wheeler process before demonstrating that it is one. As we have just seen, this is NOT a Breit-Wheeler process and has little or nothing to do with relativity. Beyond the raw fact that photons are producing leptons, everything else about the Breit-Wheeler theory is wrong. But our team here tips its hand to you in the first sentence, admitting it will be trying to confirm an 88-year-old theory. Which we have just seen means they will force-fit all new findings into that theory, mashing the English language and all logic to do it if they have to. And they *do* have to.

Here is the second sentence of the abstract:

**The measurements reveal a large fourth-order angular modulation of  $\cos^4\Delta\pi = (16.8 \pm 2.5)\%$  and smooth invariant mass distribution absent of vector mesons ( $\pi$ ,  $\omega$ , and  $\rho$ ) at the experimental limit of  $\leq 0.2\%$  of the observed yields.**

Again, that doesn't belong in an abstract. What do vector mesons have to do with anything? Nothing. This is just included as ballast, since vector mesons will look very impressive to casual readers or clueless peer reviewers. This also helps to continue to sell quark theory, which needs lots of salesmanship right now since [I have bludgeoned Murray Gell-Mann](#) past all recognition. His pathetic ghost is now crying out from purgatory as it is being erased from history, and his cousins are trying to save him.

It is no accident this is included here, since it is [my same quantum spin equation](#) we are using here that destroyed Gell-Mann and his stupid quarks. Quark theory is now dead in the water—destroyed by my spins as well as by my nuclear architecture and charge theory—which is why you see vector mesons mentioned here for no reason. To see how mesons are really composed, see [my paper on them](#).

You can't read the PRL paper online without paying these jerks something, so we will skip that. But we can see [three of the figures](#), the first one being a complex Feynman diagram of squiggly lines that explains nothing. It should be eternally embarrassing how bad this “light by light scattering” diagram is, but no one has gotten that message. Apparently, if you ask how photons collide and become leptons, it is enough to point to some squiggly lines on a page. They do it by “squiggling”. The other three figures are equally absurd, and are basically impossible to read.

I would love to reprint the last one here, but can't do so without permission, which they would not give me if I asked. But I encourage you to go see it, for a laugh. In it, they try to combine three different calculations with two different data sets and a fit, but the only thing they are able to show is that polarization was necessary. Which they fail to highlight, of course. I point you to the STARLight purple dashed line, which doesn't fit anything. Why is that important? Because it once again points at my theory of spin, and away from a relativity answer. Why? Well, you can't have polarization without real spin, can you? Polarization is telling us we have spins in specific planes, and that if the planes aren't matched, you will get no effect. So this has to be a spin effect. In order for the photons to spin one another up into leptons, their outer spins have to be in the same plane. And to get that, you have to not only have polarization, you have to have the *correct* polarization. But they need to rush you by that. Which is—I assume—why they felt they needed to bury that purple dashed line in a diagram with

five other data sets. And notice that they also import the definitions right inside the graph itself, to clutter it up even more. That isn't the normal way to draw a diagram. You normally define your data sets *outside* the graph. This just tells me they don't want anyone unwinding that diagram, or noticing that polarization is indicated above all else.