



# Periastra : Participant Information

## Miles Mathis

#09



*'The Fermi Gamma-ray Space Telescope, formerly GLAST, under construction*

*"It has been known for millennia that the Earth rests upon the back of a giant turtle. Only in recent centuries has this knowledge been added to. In 1794, in one of the high valleys of the Himalayas, one of the wise was asked, "Master, what does the turtle rest upon?" The Master answered: "It is turtles all the way down, my son." But now that scientists have finally succeeded in mapping the universe, a turtle controversy has arisen. It turns out that level 7,484,912 is occupied not by a turtle, but by a man dressed as a turtle. It is not known how this will affect our other equations"*

You probably aren't used to having a book on science and math open with a joke. But a sense of humor is crucial to existing in a world where even our greatest accomplishments contain large elements of the absurd. Some contemporary thinkers are of the opinion that we are very near to a complete understanding of the universe. I am far from agreeing with them. We have made some wonderful discoveries and are due a small dose of pride, I suppose. But the things we don't know so overwhelm the things we do that any talk of a full understanding is just bombast. Worse, it is hubris. It may even be a scientific sacrilege, with real curses attached to it. When we become too secure in our knowledge, we stop questioning. Failure to question is the ultimate scientific failure. Answers quit coming precisely when they aren't sought, and they aren't sought precisely when they are (erroneously) thought to be in hand. We are like the dog who discovers how to use the little flap-door and now considers himself master of the house. He lies in front of the fire and congratulates himself for his cleverness. He would be better outside chasing rabbits.

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## The Solar Emission of Gamma Rays

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In May of 2019 it was reported widely that the Sun was mysteriously emitting gamma rays at a rate about seven times previously thought or predicted. Also a mystery was a gap in the emission spectrum at about a trillion times the frequency of red light. Here is what one of the researchers said at the time:

*"It's amazing that we were so spectacularly wrong about something we should understand really well: the sun," said Brian Fields, a particle astrophysicist at the University of Illinois, Urbana-Champaign.*

That pretty much confirms what I have been telling you for years. The mainstream, which has been claiming since the 1980s to know almost everything about physics, actually knows next to nothing. In the past twenty years, huge piles of data have come in from all sub-fields driving that home with tall exclamation points. And the fact that a particle physicist admitted this is all the more astonishing, since they have historically been the most self-congratulatory and stick-in-the-mud. Fields' famous colleagues have prevented any progress in physics for many decades by hunkering down and forbidding all new theorizing. They have whined at ever-increasing volume that quantum physics is the greatest thing ever, finished, complete down to the Planck level, and that it should not be questioned. Despite that, I have shown that it is wrong as both physics and math at almost every point. It is a colossal failure in every way.

But there is something even more astonishing here, that being that these people in physics are once again proving they can't do basic equations in their own fields. They should have known why that gap was there immediately, as I did, and the reason they didn't is that a lot of their famous math is flawed. They can't even use it to answer simple questions like this.

In the linked paper, we are told the gap is at about 40 GeV. Interestingly, there are large particles predicted at that mass, called tt vector mesons. Since the proton has a rest energy of 938 MeV, that is an energy of about 42.6 protons. You may already see where I am going with this: since the proton will not be at rest in any comparison here, we have to compare the gamma ray to an equivalent proton. What do I mean? I mean that if the Sun is turning selected gamma rays into protons by slowing them down and converting energy to mass, it would not do that by stopping them cold. It would do it by spin downs of the sort I have shown you over and over, as in magnetic reconnection. Edge hits between photons in a very compressed charge field would transfer energy on the tangent (photon edge) from linear to spin energy. The photon would slow down below  $c$ , and the energy that was previously in  $c$  would go to a series of stacked spins. Those stacked spins are what we call mass, since they have both radius and energy equivalence. The gamma ray would become the proton. And by that mechanism the Sun would mop up most gamma rays at that energy, creating a gap.

So what I am proposing is that through a species of magnetic reconnection, the Sun is turning light into matter. We are seeing a gap in gamma rays because those are the photons that are the right energy to be turned into protons. But, as we have also seen before, when that happens the particles created—whether electrons or protons—are not created at zero velocity. When we have seen electrons created from photons in the aurora, for example, they still have high velocity after creation. That velocity is not  $c$ , but it is not zero, either. Only part of  $c$  is transferred to spin energy, and the new particle maintains a high velocity. The mainstream can't calculate this, because to do so they could only use relativity energy transforms, which I have shown are flawed.

A mainstream physicist who had this idea of mine would apply an energy transform to the proton, to calculate a velocity at a mass increase of 42.6. Which would be something like  $.95c$ . He would then propose that the gamma ray missing in the gap had slowed to  $.95c$  due to collisions in the Solar interior, and that the linear energy contained in  $.05c$  had been transferred to spin energy. He would say that conversion had created what they call a tt vector meson, but it wasn't really a vector meson because this new particle was stable. Vector mesons are unstable at any energy, and it is because their stacked spins are not stable. Usually the outer spin is orthogonal to the direction of linear motion, opening the particle to collision. An outer spin in the right direction is protection from collision, you see. But this particle created by slowing the gamma ray was stable. It had a set of stacked spins of the right sort, with an outer spin to protect the particle, making it a species of spun-up proton. In fact, it IS just a proton at high speed, since if we slow it, it starts shedding outer spins and eventually slows down into the proton we know and love. And which we also call hydrogen, the main component of the Sun.

In fact, that is my theory as well, except for some changes. I have shown that in accelerator, particles aren't gaining energy just from velocity, in a straight Relativity transform. They are gaining energy from the charge field. So although the energy increases are real, the equations and theories aren't. Therefore, to understand what is going on here, we have to create new theory and new equations. I have already done that with my quantum spin equations, which tells us how particles stack spins to add energy. But those equations don't have a velocity variable in them yet.

I can't use the Relativity transform, so I would have to develop my own transform. But I couldn't develop a general velocity transform anyway, since the amount of energy the proton gained from velocity would depend on the density of the charge field. So the transform would be very different in the Solar interior than it would be on the Earth, for example. Another reason simple Relativity transforms can't possibly work. But we can make some general observations. If the proton did gain or lose energy by this method in the Solar interior, like in an accelerator on the Earth, we would expect it to do so by doubling its spin radius. Using my quantum spin equation, we see that if the proton on Earth stacked on another spin, we would expect it to increase its energy only eight times. How's that, you ask?

Well, the sequence of spin stacking goes 1, 9, 65, 1025, 16385, with the slowly moving electron being the second number and the slowly moving proton being the last number. By slowly moving, I don't mean something like 10mph, I mean something like  $.005c$ . The next number in the sequence is 131073, giving us an increase of about 8 times. Since the proton in the Solar interior would need to gain 42.6x to fit my theory here, that would indicate the charge field in the Solar interior is about 5.3 times more dense than here, all other things being equal. That's already close to the 7x production of gamma rays they are finding, so it suggests we may be on the right track. We only need to find a further increase in the field of about 24% to explain the 7x overproduction. Since the number 7 comes from mainstream equations, which I have shown are riddled with basic errors, that wouldn't be too hard to do. Every time they use pi they are already 22% off, which takes us down to 2%.

You will say, "Doesn't the mainstream already know the charge field in the Sun is denser than on the Earth?" And the answer is "sometimes they recognize it, but it isn't in their equations explicitly, so it doesn't matter". What is in mainstream equations isn't charge density, but matter density. And the fact is, the matter density of the Sun is actually thought to be much less than on the Earth. Its average density is given as  $\frac{1}{4}$  that of the Earth. And the mainstream has no way to calculate the density of the charge field. How could it when it believes charge is mediated by virtual photons? Virtual photons can't have any real density, and are only ghosts in the field. They don't enter the equations. That's why they still don't understand that dark matter is charge: the charge field has never had a real presence in the field equations, which are gravity-only. So how could they calculate the Sun's charge field was 5 or 7 times more dense than anything?

This would indicate that either the matter density of the Sun is wrong, at least in the core or along the poles, or that charge density isn't simply a function of matter density. In previous equations I have calculated charge density from MD, mass times density, and that has worked very well on planets. But it may be that is an oversimplification with objects like stars. It actually wouldn't surprise us if the Sun had a much higher charge density than the Earth, especially along its poles, since the Sun is such an obviously powerful charge

engine. But how would it increase charge density other than with more matter density? Possibly through a huge amount of angular momentum. This angular momentum would allow it to create massive charge vortices at the poles, sweeping up huge amounts of charge coming in from the galactic core. Since the vortices naturally pinch in at the poles, this compression could add greatly to charge density locally.

On the way out I will answer another question that hasn't come up before. I have previously said that electrons are spun-up photons, and given my quantum spin equation, we could see how they would be the next step up after X-rays. But since gamma rays actually have more energy than electrons or even protons, how do they dodge this transformation into an electron or proton? Why does the extra spin energy of the electron give it a larger radius and slow it down below  $c$ , while the extra spin energy of the gamma doesn't? It's very simple: the gamma hasn't yet collided with anything. The gamma is a freshly spun-up entity, and if we detect it, we have detected it before it has collided.

You will say, "How is that possible? If it is emitted by the Sun it has to pass out of the Sun and travel all the way to the Earth, through the Solar Wind and so on. How can it have dodged all charge between here and there?" Well, charge isn't very dense between here and the Sun. It is powerful, but not especially dense. Charge photons are extremely small, so it takes a high density, like very near a nucleus, to make a hit likely. Plus, you have to consider the time. A gamma will get here in about 8 minutes, so it should not be too surprising to hear it has dodged most traffic. Besides, if it didn't dodge the important traffic, it wouldn't get here as a gamma. So it is mainly a tautology.

Which helps us understand the process I am theorizing on the Sun, by which a gamma becomes a proton. In short, a gamma already is a proton (or electron or meson, depending on its energy). It is a proton still at  $c$ , before it has collided with something and been slowed down. When it is freshly minted and before it slows down, we call it a gamma. After it has slowed down below  $c$ , we call it a proton.

If that is true, we should be able to demonstrate it, since it implies gammas intersecting matter should produce Hydrogen. However, I remind you that production may not be one to one, since although gammas of the right energy should have the capability to produce Hydrogen, they would do so only if they had the right series of stacked spins. As we saw in my paper on baryon production by spin stacking, there are 32 combinations, and only a few of them produce protons. Others would produce neutrons. And if the process is happening like it is happening on the Sun—as described above—by starting at the level above the proton and shaving it down by a later collision, then we have even more combinations, many of which will not be stable. They will be like the  $tt$  vector mesons, with outer spins perhaps orthogonal to the linear motion. So it is best to keep that in mind.

Still, I predict it should be possible to create Hydrogen from gammas on purpose, by mimicking the process on the Sun. From our analysis here, that would be done by starting with gammas that have an energy of the level up from the proton, and seeking a collision that would strip that outer spin. That may require a 5x-dense charge field and it may not. I will be told protons can't go  $c$ , not even as freshly minted gammas. Relativity forbids it, since mass would increase to infinity at  $c$ . But I have proved that was never true. I have saved large parts of Relativity by rewriting it, but that part was due to faulty math and I threw it out. It went out the window with parameterized post-Newtonian formalism and all that other garbage.

I remind you that none of this talk of creating matter from light is outlandish, since the mainstream is now admitting it happens. And we see the reverse process all the time, as electrons, pions or protons turn into gamma rays. So why shouldn't gamma rays turn into electrons or protons? What do I mean? I mean that if you check for the mainstream production of gamma rays, you find them "created" in several processes. In the first, a proton-proton collision, pions are produced which "decay" into gamma rays. What do they mean by decay? Well, basically the pion becomes the gamma, just like I have proposed above, but the reverse. They don't use stacked spins to explain this, but by using the word "decay" they are all but admitting the pion doesn't somehow emit the gamma. It becomes the gamma. They have never bothered to explain how that works, but I have done so with my stacked spins and quantum spin equations. In the second process, an electron and positron collide, again producing pions that then produce gammas. They call this an annihilation, but obviously nothing is annihilated, as I have said before when analyzing this event. We could just as easily use the word decay again rather than annihilate, in which case it is the leptons becoming the pions becoming the gammas. But unlike above, in this case the spins are transferring energy to linear motion. The spin is becoming  $c$ .

When the gamma becomes an electron, pion, or proton,  $c$  becomes spin. You can see how my quantum spin theory explains these events. The proton is losing its outer spin to become the pion, which then transfers spin energy to linear, accelerating to  $c$  and becoming the gamma. With the electron, it has to gain a spin to become a pion, which is why it has to collide with an anti-particle. The proton is being spun down while the electron is being spun up. But if spin energy can transform to linear energy, as when the pion becomes a gamma, then the reverse is also possible: the linear energy transforms to spin energy, and the gamma becomes a slower moving particle like the electron, pion, or proton.

Therefore, you can see why I immediately intuited the gamma gap on the Sun was due to gammas at that energy not being available for release. Why would they not be available for release? Because they were being used for something else. What could that be? Given their energies, it could only be that they were suffering collisions before they left the Sun, slowing them down and turning them into protons. This would indicate that Hydrogen production is going on in the Sun all the time, just as we would expect. But it isn't being produced as thought up to now. It is being spun up from smaller quanta, namely photons.

Find the paper here: <http://milesmathis.com/gamma.pdf>

