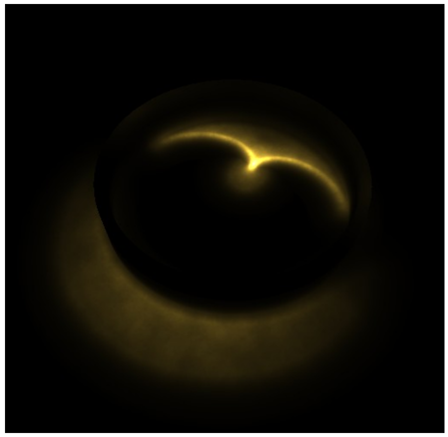
return to updates

Redefining the Photon

and why it is going c



by Miles Mathis

Now that I have some new equations for the photon, I can go back to previous papers and update them with this new information. This paper will be a sort of compilation of all I know about the photon to date.

From my previous paper, we found

$E_\gamma = 2r_\gamma\sqrt{c} = m_\gamma c^2$
$m_\gamma = 2r_\gamma/c\sqrt{c}$
$r = mc\sqrt{c}/2$
$\lambda = 8E(r_\gamma/m_\gamma) = E(C_\gamma/m_\gamma)$ C is circumference of the photon (z-spin)
$m_\gamma = E(C_\gamma/\lambda)$
$\lambda = Cc^2$
$E = \lambda/4c\sqrt{c}$

I have shown that we can find the mass of the charge photon by using the same scaler as we use between the electron and nucleon. That scaler I have called the Dalton, and it is the number 1821. But since the charge photon is two levels below the electron, we have to square it:

$m_\gamma = m_e/(1820.56)^2 = 2.75 \times 10^{-37}$kg

Which gives us

$E_\gamma = 2.47 \times 10^{-20}$J
$r_\gamma = 7.13 \times 10^{-25}$m
$\lambda = 5.13 \times 10^{-7}$m
$C_\gamma = 5.7 \times 10^{-24}$m

By energy, this makes the charge photon infrared. By wavelength, it makes the charge photon ultraviolet. But since I have thrown out the current wavelengths as inapplicable to the photon itself, we should look at energy. The charge photon is still infrared.

When I said we would have to reverse the charts, I didn't mean we would switch infrared with ultraviolet, or something like that. I meant that to keep the energies the same, and keep the chart as-is in that way, we would have to reverse wavelength and frequency. Now you see what I mean by reversing the wavelength. What was infrared remains infrared, since we continue to label light by energy. But infrared photons now have smaller wavelengths than ultraviolet.

As for frequency, I don't talk about it when labelling photons, because it is no longer a direct function of energy. The energy of a photon isn't determined mainly by its spin frequency; it is determined by how many stacked spins it has. Higher energy photons have more stacked spins.

I was recently asked why light is going c, and now I believe I have a partial answer. The information is contained in the equations above. We start with this equation

$m_\gamma = 2r_\gamma/c\sqrt{c}$
$c = 2r_\gamma/\sqrt{c})m_\gamma$
$c^3 = 4r_\gamma^2/m_\gamma^2$
$c = \sqrt[3]{(4r_\gamma^2/m_\gamma^2)}$

That means that the velocity c is a function of the photon's mass and radius. In other words, its speed is determined by its size in the field, just as we would expect. In the macro-world, we would need one other variable to solve, that being the density of the charge field as a whole. I have recently found the mass equivalence of the charge field relative to the matter field (baryonic matter), that being 19 times. This is where we are getting the "dark matter" number of 95%. But that doesn't give us a universal charge density. In fact, according to my theory and equations, there should be no universal charge density. Charge should be denser in galaxies than out of them, and denser near stars, and so on. By this analysis, it seems that the velocity of the photon would change in different densities. Because this appears not to be so, I assume that the mass of the photon may change depending on the charge density around it. Remember that mass is a function of energy according to the old equation $E_\gamma = m_\gamma c^2$, which means that the photon's mass is already a function of the charge density. As the charge density grows, so will m. So that variable m already includes the charge density, in a way. This feedback mechanism may be what keeps c constant.

The charge density is determined by the size of the photon and the size of the charge field. We don't have to include mass in a determination of field density, since we can calculate the density of empty boxes in a given size room, for example. Fifty bozes per room, say, or a hundred boxes per room. It is like a population density in a country. You don't need to know how much each person weighs, do you? But if you want to know how crowded the country is, you *do* need to know the size of each person. That is the sort of density I am trying to find here.

$D = \sqrt[3]{(2r_\gamma)}n/V$
$\sqrt[3]{2r_\gamma} = DV/n$

That's the equation for population density of the charge field. We don't use a spherical size for the photon. We have to square it out, because not all space is usable. In other words, in a population density, a sphere takes up just as much space as an equivalent cube.

But we can also write the volume V in terms of the radius of the photon. Since we have cubed out our photon, the volume is just some number N times the radius of the photon. That is how many photons would fit in the volume at capacity.

$V = \sqrt[3]{(2r_\gamma)}N$
$D = n/N$

Now, we can also calculate the density due to mass, by the old equation D = m/V. It won't be the same number for the density, but that won't matter, because we are now representing the population density by n/N.

$Nm = DV$
$m = DV/N = \sqrt[3]{(2r_\gamma)}D$
$m^6 = 4D^6r_\gamma^2$
$c^3 = 4r_\gamma^2/m_\gamma^2$
$m^6 = 4r_\gamma^6/c^9$
$4r_\gamma^6/c^9 = 4D^6r_\gamma^2$
$\mathbf{c^9 = r_\gamma^4/D^6}$

That represents c as a function of the radius of the photon and the charge density. I think that pretty much answers the question I was asked.

But let's solve that equation for D, to see what the average density of the charge field is:

$\mathbf{D^3 = r_\gamma^2/\sqrt{c^9}}$
$\mathbf{D = 1.54 \times 10^{-29} kg/m^3}$

That seems about right, since it would be about 56 million photons per cubic meter.

If we divide that into the proton mass, we get 108. Why is that important? Because it gives us another way of calculating the energy increase of the proton in an accelerator. It has been found experimentally that the proton has a mass increase limit of 108m. I have already found one way of calculating that limit, using the gravity vector of the proton and the Relativity transforms. However, this method is more efficient, as you see. And this method shows it is the charge field itself that is preventing the proton from going any faster. The proton is simply too big to move any faster in the field. The only way it can accelerate past 108m is to shed its outer spin and become a meson.