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Magnetic Flux Radius of a Single Electron.

Abstract: In this paper, I wanted to show how I calculated the Magnetic flux radius given off by a single electron. I use two different methods to achieve this, and to my delight, I arrive at the same value both times. The flux radius of a single electron was found to be 2.94888780065 metres.

Theory:

In order to understand how I arrived at a value of 2.94888780065 metres for the flux radius of a single electron, I must first explain a theory known as the McMahon field theory (2010). In this theory, it is revealed how and why magnetic flux appears on moving electrons (electric current). I shall explain how and why the magnetic field appears now.

From the paper "**McMahon, C.R.** McMahon field theory (2010), we have the following:

"Special relativity applies to particles or masses moving close to the speed of light, which is the case for electrons moving as electrical current in a wire, as shown in the paper: **McMahon, C.R. (2015)** *"Electron velocity through a conductor*". Thus, special relativity applies to such particles, which allows us to observe special relativity in the real world as the magnetic field. Thus, through the magnetic field, this paper explains that particles moving near the speed of light appear as energy fields.

First, allow me to present a new understanding of energy, which requires us to modify Einsteins theory of special relativity, and our understanding of it.

Let us begin by explaining the nature of energy using an example of electrons moving through an electrical wire. Since the velocity of these electrons can be considered as at or near the speed of light, we can assume that they are affected by both time dilation and length contraction, effects predicted by Albert Einstein's famous theory of relativity. It is worth noting that Albert A. Michelson and Edward W. Morley carried out an experiment that showed the velocity of light does not change, regardless of the velocity of the theoretical ether through which it passes (**Serway, R.A. (1996))**. Einstein appears to have interpreted this result as meaning the velocity of light is the same for all observers, which became the foundation of what is known today as the Special theory of relativity. I therefore acknowledge the contributions of Albert A. Michelson, Edward W. Morley and Albert Einstein which made the special theory of relativity possible.

From Einsteins special theory of relativity, we are presented with equations 1 and 2.

$$T' = \frac{T}{\sqrt{1 - \frac{V^2}{C^2}}} \quad \text{.......... equation (1}$$

$$L' = L\sqrt{1 - \frac{V^2}{C^2}} \quad \text{.......... equation (2}$$

Where:
T ‘ = Time experienced by moving object, relative to stationary observer.
T = Time experienced by stationary observer, relative to stationary observer.
L ‘ = Length experienced by moving object, relative to stationary observer.
L = Length experienced by stationary observer, relative to stationary observer.
V = the velocity the moving object, relative to the stationary observer.
C = The speed of light, = 299,792,458 m/s.

From Einsteins special theory of relativity, equations 1 and 2 tell us that as a particle approaches the speed of light, the stationary observer tells us that time slows down for the moving particle compared to the time the observer experiences. Also, this observer tells us that the length of the particle appears shorter as it approaches the speed of light. McMahon field theory takes these basic ideas, and expands on them. What if we are interpreting equations 1 and 2 incorrectly- in that the equations are correct, but our understanding of them is incomplete? Note that the term “V” is used for “velocity” in equations 1 and 2, rather than simply “s” for “speed”. This means we must consider both the magnitude and direction of the moving body in equations 1 and 2, as velocity is a vector quantity, whereas speed, is a scalar quantity, which only considers magnitude.
Therefore, if the path taken by the moving body is important, since velocity is a vector, thus we have no choice but to consider the path and magnitude of the moving body, then we must apply the effects of special relativity not just to the moving particle, but also to its path. If we do this, our understanding of special relativity changes. This new understanding gives rise to the McMahon field theory.

Let’s perform a thought experiment: Let’s imagine a stretched out spring. Let the straight stretched out spring represent the path of electrons moving in an electrical wire. Now, since length contraction occurs because of relativity, the electron path is affected. As a result, the straight line path of the electron is compressed. This is the same as allowing a spring to begin to recoil. As a result, the straight line path of the electron begins to become coiled. I call this primary coiling. This is the effect length contraction has on mass as is approaches the speed of light and is dilated by length contraction. When a particle such as an electron reaches the speed of light, it becomes fully coiled or fully compressed, and Einsteins length contraction and time dilation equations become equal to zero and “undefined”. This particle, now moves as a circle at the speed of light in the same direction it was before. If this particle tries to move faster still, it experiences secondary coiling. Ie: the coil coils upon itself, becoming a secondary coil. This is why energy is observed on an Oscilloscope as waves: we are simply looking at a side on view of what are actually 3-dimentional coiled coils or secondary coils. Waves are not simply 2 dimensional; rather, they are 3 dimensional secondary coils. It was easy for scientists of the past to assume waves were 2 dimensional in nature, as the dimensional calculations and drawings for relativity were carried out on flat pieces of paper which are also 2-dimentional. The human imagination, however, is able to perform calculations in multiple dimensions. Now, let's consider the effect of time dilation.

When an electron approaches the speed of light, according to relativity, it undergoes time dilation. What does this actually mean? I believe this is the effect: time dilation allows a body, particle or mass- in combination with the effects of length contraction, to exist in multiple places at the same time. This is why we observe magnetic flux. Electricity is composed of high speed electrons, so these electrons would be affected by time dilation and length contraction. As a result, the electron is both inside the electrical wire, and orbiting around the wire as magnetic flux (because of full primary coiling at the speed of light). Magnetic flux is the combined effect of length contraction and time dilation on the electron. The coiling effect is why electrical wires carrying electricity exhibit magnetic fields- the electron path is compressed into coils, and time dilation permits the electron to occupy multiple positions at the same time, which is why magnetic flux is detected as coils at different distances from the electrical wire. Please refer to figure 1 on the following page.

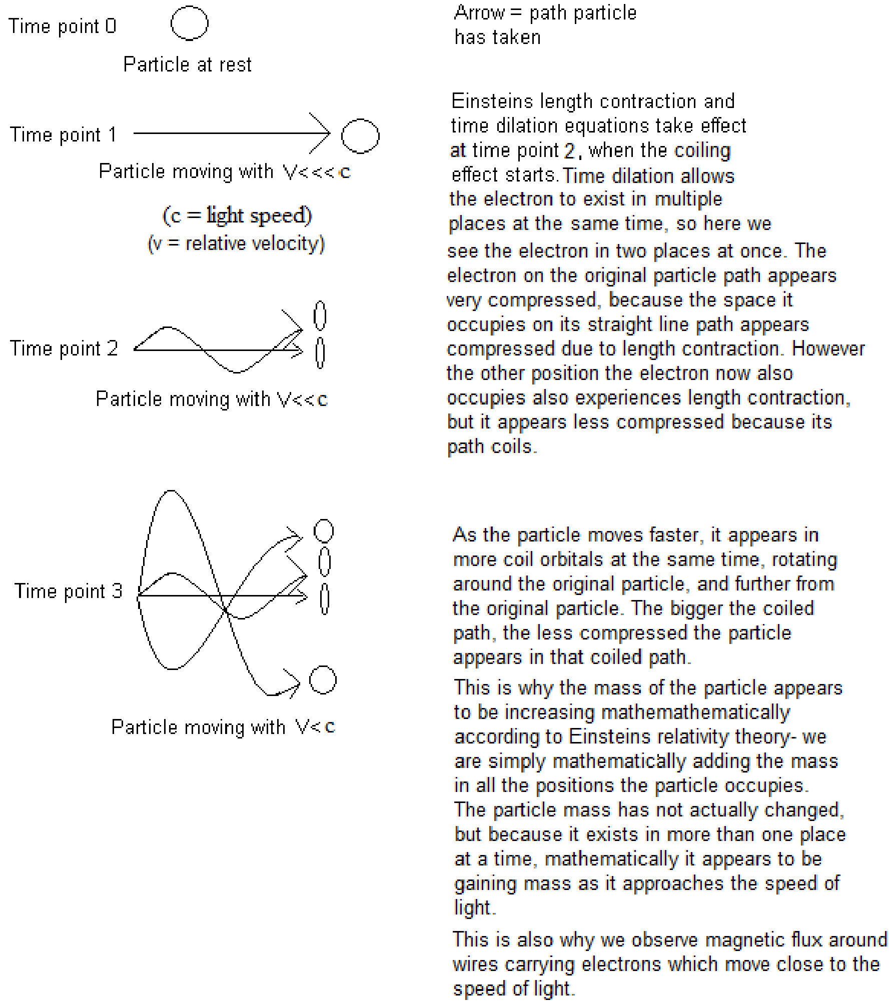


Figure 1: Particle relativity. What we observe as relative stationary observers of a particle as it travels faster.

Next, we must consider the fact that nothing appears to be able to travel faster than the speed of light. If this is true, then if we were to try to speed a particle up beyond the speed of light, the true speed that would be observed must be dilated by relativity. Refer to figure 2 below. Lets call the velocity that would be observed for a particle if relativity didn't dilate it the "Newtonian velocity", which has the symbol "Vn". Thus, particles can travel faster than the speed of light, but relativity dilates the velocity we observe back down to the speed of light.

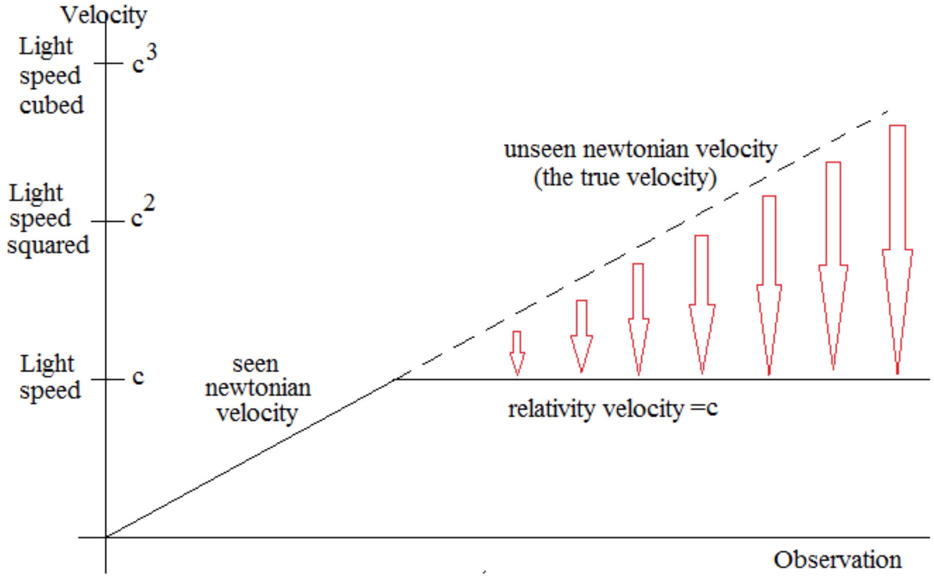


Figure 2: The dilation of the true velocity or Newtonian velocity by relativity. Here, we see that the dotted line represents the true velocity of particles travelling faster than the speed of light, but relativity dilates this velocity down to the speed of light which coils the path of the particle, so observers don't ever see particles travelling faster than light. The degree of velocity dilation is represented by the red arrows. Hence, the solid lines represent that which is seen, but the dotted line, which is the true velocity above light, is unseen due to dilation by relativity.

Considering figure 2, we see that once a particle reaches the speed of light, its observed velocity (relativity velocity) appears constant. However, this is only because its true velocity (the dotted line), or Newtonian velocity, is dilated back down to the speed of light by relativity. So, once a particle reaches the speed of light, if we try to make it go faster, we don't see changes in velocity, so something else must change. What changes is observed frequency and wavelength. In other words, figure 2 tells us that, once a particle reaches the speed of light, its speed appears to remain constant, which means that we now observe the particle as energy. This is because all energy forms on the electromagnetic spectrum appear to move at the same speed, namely, c, the speed of light, but if we add or subtract energy from the electromagnetic spectrum, instead of observing changes in velocity, we observe changes in frequency and wavelength. Thus, at the speed of light, a particle appears as energy. In the case of an electron, once an electron reaches the speed of light, if it tries to go faster, we observe this electron as an energy form on the electromagnetic spectrum. Refer to figure 3 below.

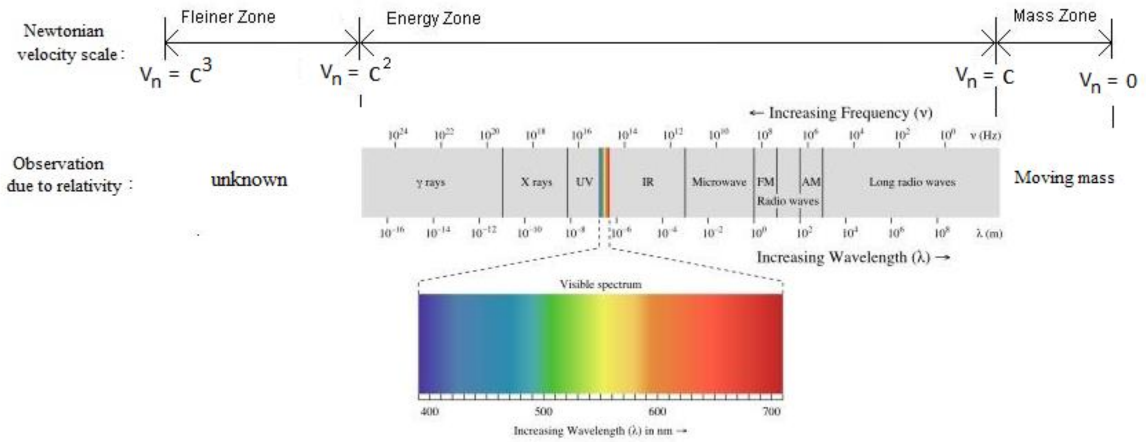
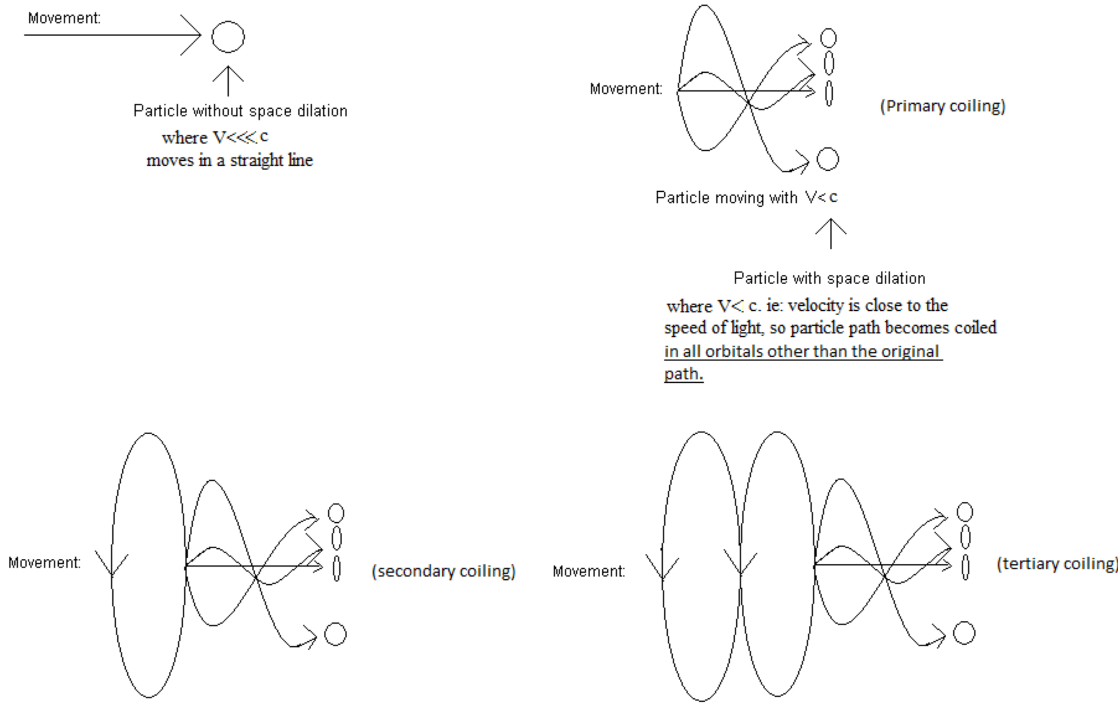


Figure 3: How an electron is observed at different newtonian speeds: modified from Serway, R.A. (1996). Here, we see that as an electron moves with increasing speed according to Newtonian physics (although the speed we observe is dilated back to that of light because of relativity as in figure 2) and becomes a coil because of relativity, as the electron speed is increasingly dilated back to light it is observed as different types of energy. This is because the electron becomes more coiled (more velocity dilation) as it tries to move faster, so we say that the frequency increases and wavelength decreases. In this diagram, let the value of true, un-dilated Newtonian velocity due to relativity be Vn as in figure 2, and let the velocity of light be equal to c. I believe that electrons are on the boarder of mass and energy, so in the diagram above electricity would be at the point where Vn=c. If the electrons in electricity tried to move faster, they would be compressed further into a secondary coil to become long radio waves, then AM radio waves, then FM radio waves, then microwaves, then Infra-red (IR), then X-rays, then y-rays. Hence, the electromagnetic spectrum is nothing more than an electron dilated by different magnitudes of relativity. <u>Other particles, such as protons and neutrons, will also have their own spectrums, which may be different or similar to that of the electron.</u>

From Figure 3, we see that if electricity or electrons in an electrical wire tried to move faster, the electrons path would be compressed further, making it coil upon itself again creating secondary coiling or a coiled coil path. Hence it would be further affected by length contraction. As a result, the electron will be observed as different forms of energy. In the figure above, we see that an electron is considered as mass when it has an undilated velocity or Newtonian velocity between 0 and c. If an electron tries to travel faster than this, it enters the energy zone, where the electron path becomes fully compressed and moves as a full primary coil or circle which undergoes secondary coiling or coils upon itself. A particle moving as energy or a secondary coil has an un-dilated velocity or Newtonian velocity range between c and c^2. In this range, the particle now experiences secondary coiling, so the coil now coils upon itself. Figure 4 also explains what happens if an electron tries to move faster than C^2: The secondary coiled or coiled coil path becomes overly dilated, and the length contraction effect becomes so great that the particle now undergoes tertiary coiling- ie it becomes a coiled coil coil. As a result, because of excess coiling the particle becomes undetectable or unidentifiable. These undetectable states are what are known as dark matter and/or dark energy. See figure 4.



From the paper: **McMahon, C.R. (2013)** *"Fine structure constant solved and new relativity equations– Based on McMahon field theory"*, we are told that Einsteins time dilation and length contraction effects stop occuring and reach their maximum effect at a velocity of 299,792,457.894 m/s. Thus once a particle reaches the speed of light, the mass of the particle system mathematically is the same as at the 299,792,457.894 m/s velocity. Also, if the particle tries to move faster than light, the entire system then coils upon itself, something I call secondary coiling. This prevents us from ever seeing velocities greater than light. This is what energy is- particles moving as coiled coils. When secondary coiling is complete- and tertiary coiling begins- this is the state of Fleiner.

Figure 4: The actual affect Einsteins relativity theory has on the movement of a particle, causing it to first appear as mass during primary coiling, then energy during secondary coiling, and Fleiner during tertiary coiling, during which it becomes dark matter or dark energy. Einstein was unaware of this. Figure 7 also depicts secondary coiling.

Now, we must consider conventional science of the current day. Conventional oscilloscopes are used for energy only. Therefore, the "waves" we see on oscilloscopes are in fact, the side views of secondary coils and higher degrees of coiling. Once full primary coiling is achieved, the fully compressed primary coil remains as it is, but with more momentum it begins to coil upon itself, which is secondary coiling. Thus, "wavelength" and "frequency" according to the science of this day are measurements from the reference point where a full primary coil forms.

From this theory, we realize that magnetic flux must arise due to the length contraction and time dilation of the electron, if we assume that electrons move as electricity at the speed of light relative to us as observers, as in the paper: **McMahon, C.R. (2015)** *"Electron velocity through a conductor*". We observe this flux differently depending on the Newtonian velocity of the electron (ie: the electromagnetic spectrum in figure 3). Keep in mind that relativity prevents observers from measuring the true velocity

(Newtonian velocity) of the electron- relativity dilates velocities greater than light back down to the speed of light. Refer to figure 2.

Now, figures 1 and 4 depict the length contraction effect on the electron, but the length contraction effect occurs simultaneously with the time dilation effect, which causes the electron to exist in multiple places along-side itself at the same time. As a result, as a particle approaches the speed of light, the original electron remains in its original linear position, but it also exists tangentially to itself, which rotates around its original self.

From figure 5 in A), we see a stationary electron in a wire. If this electron moves to the other end of the wire at speeds much less than C for us on Earth, the particle obeys the laws of Newtonian Physics. In B), we see our electron now moves through the wire with a speed of c, so as discussed earlier it undergoes full primary coiling, which results in the appearance of a magnetic field (the magnetic field is the primary coiling) so it obeys the laws of relativity. From Einstein, when the electron moves at a speed where V=c, T'= undefined (time dilation = undefined) and L'= 0 (length compressed to zero). This means that to us, the particle no longer experiences time as in Newtonian physics, and now moves as a full primary coil or circle which propagates along with a speed equal to c. Because T'=undefined, the electron is able to be in more than one place at a time. Because L'=0, the particle is seen to move as a full primary coil or circle, which moves along the wire, always with a relative speed equal to c. this means that the electron is both inside the wire, and orbiting around the wire in multiple orbits multiple distances from the wire at the same time.
These "ghost or flux particles" which are all one particle that exist in different places at the same time, are responsible for the strange observations and theories made in quantum physics. These theories arise from the fact that ghost particles appear in their experiments involving high speed particles, such as the double slit experiment, and physicists cannot explain what they observe.

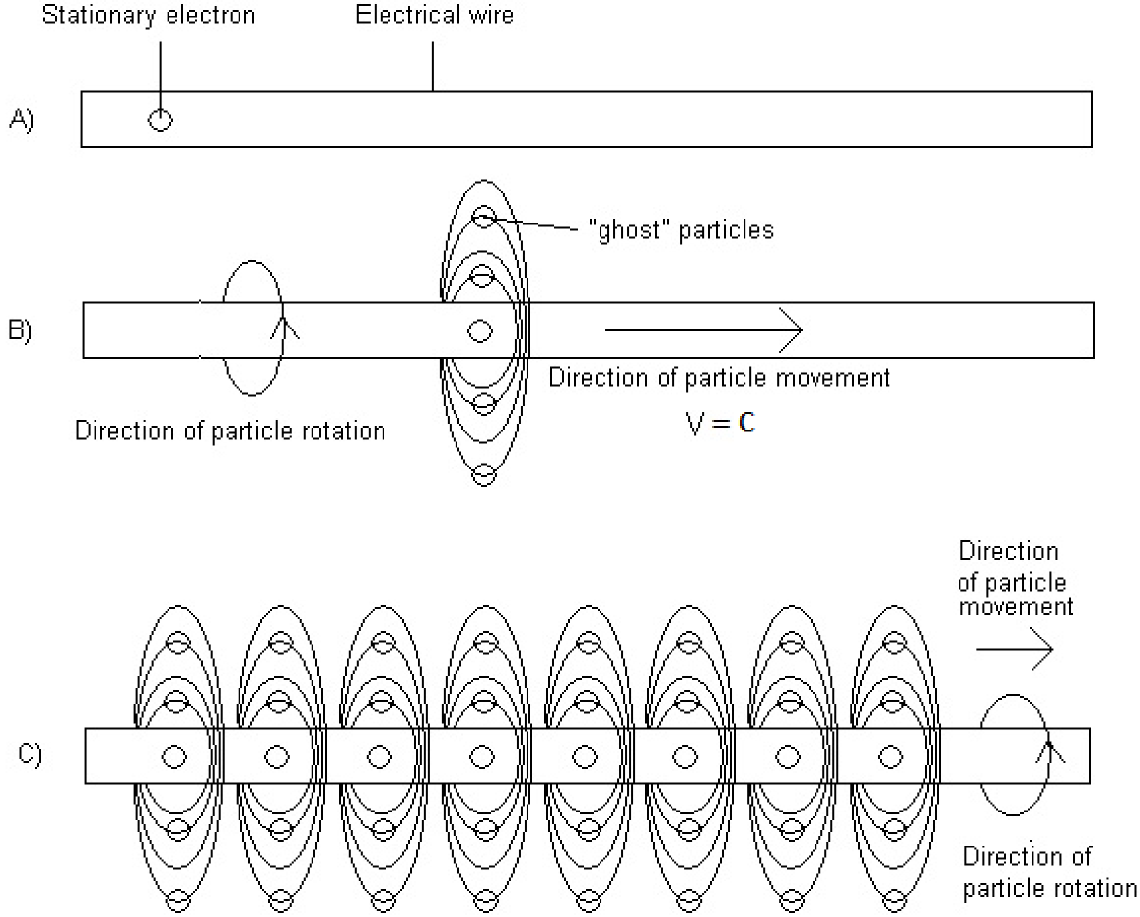


Figure 5: In A), we see a stationary electron in a wire. If this electron moves through the wire at speeds far below c, then the particle simply moves in a straight line through the wire, and no magnetic field is observed.
In B), our electron is now moving at c, so space dilation is occurring, causing the electron to now move as a circle (full primary coil) rather than in a straight line. As a result, the entire primary coil is always seen to move at a relative speed of c. However, the particle is experiencing maximum time dilation, t'=undefined. As a result, relative to us as stationary observers, the electron is in more than one place at the same time. In fact, the electron is both inside the wire, and orbiting around it in multiple orbital positions at the same time. As a result, we observe a magnetic field around the wire, which is just the electron orbiting around the outside of the wire. When a particle is seen in more than one place at the same time, I call this a ghost or flux particle.
In C), the situation described in B) is exactly what is observed when electricity moves through an electrical wire. Note that conventional current moves in the opposite direction to electron flow."

From figures 1 and 5, we see how and why the magnetic field appears on the electron when the electron moves- it is because of the time dilation and length contraction effects of Special relativity.

From the paper: **McMahon, C.R. (2013)** *"Plancks constant solved",* It was revealed that planks constant is equal to the rest mass of a single electron, multiplied the circular area that this electron occupies per second as a magnetic field. Refer to figure 6 below.

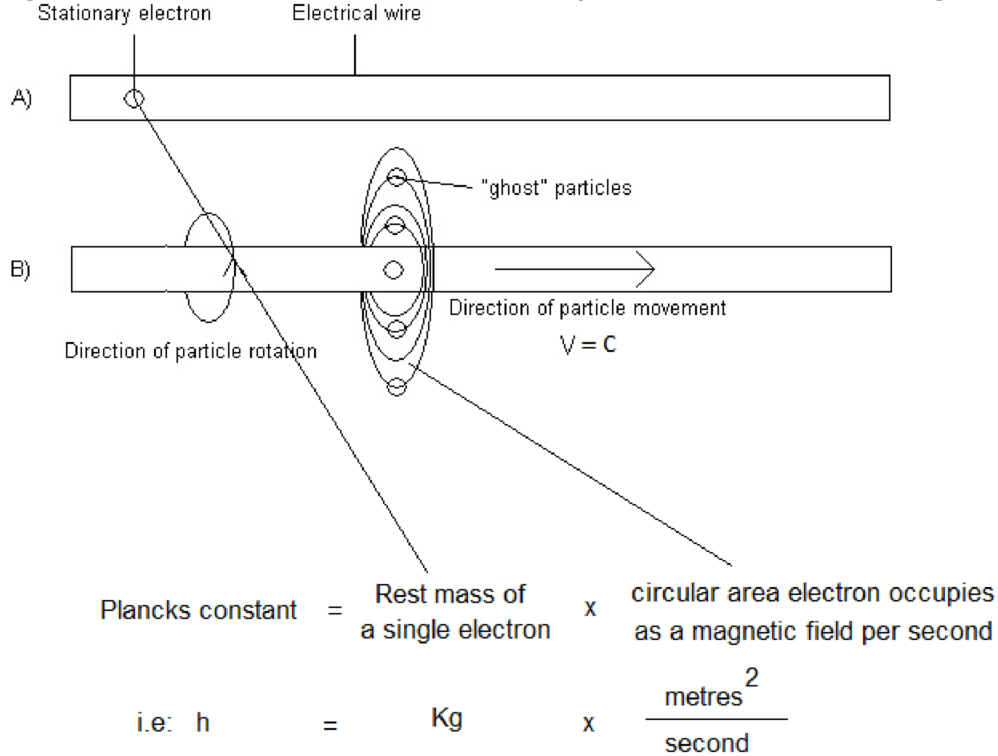


Figure 6: Here, we see that Planks constant (h) is equal to the rest mass of a single electron, multiplied by the area this electron occupies per second (when the electron moves at the speed of light).

When we multiply Plancks constant by frequency, which has units of hertz, or “cycles per second”, we realise that energy is actually a coiled coil- ie: the magnetic field coils upon itself for all energies of the electromagnetic spectrum. This is because frequency has units of “cycles per second”, or hertz- which indicates further coiling is occurring. Refer to figure 7 below.

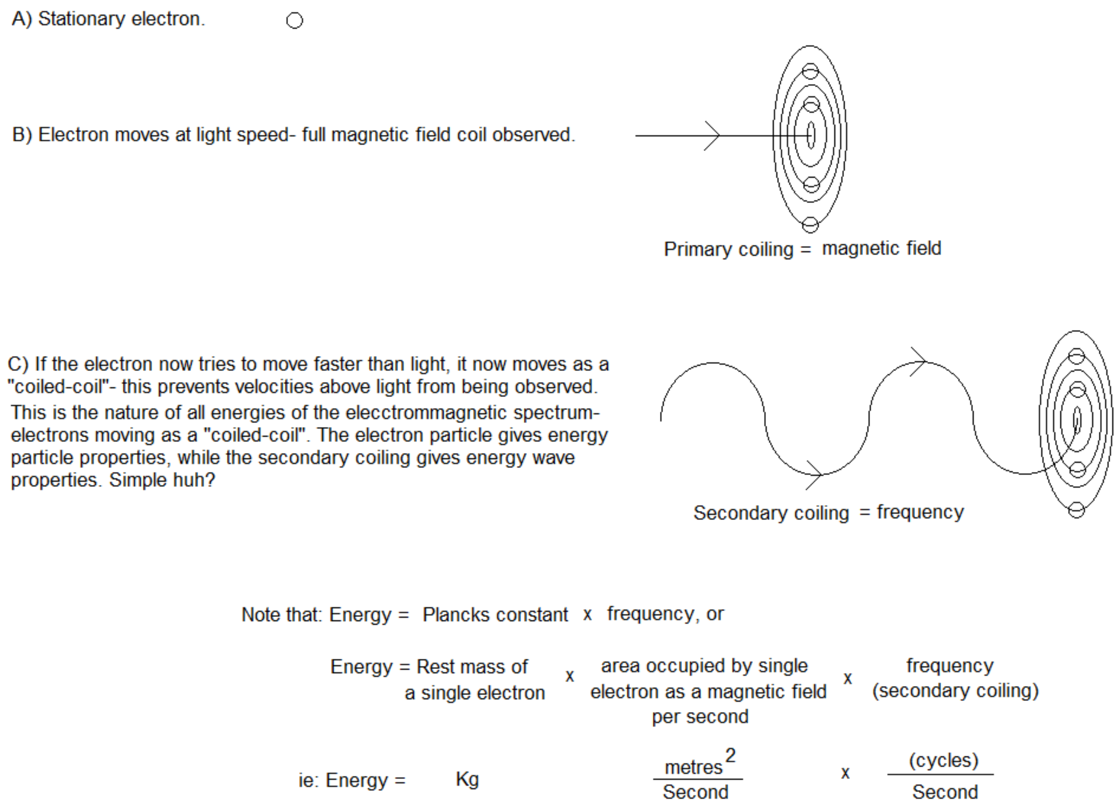


Figure 7: Here, we see finally see how Plancks constant relates to energy. Sadly, Max Plank did not live to learn this great secret truth for himself.

With this understanding, let us calculate the radius of the magnetic field for a single electron, moving at the speed of light.

Method 1: Using Calculated Flux Area

From the paper **McMahon, C.R. (2012)** *"Calculating the true rest mass of an electron – Based on McMahon field theory."*, it was discovered that the "circular area occupied by a single electron as a magnetic field per second" was = 27.3190988979 Metres^2/second.

Using geometry, we have:

πr^2 = "circular area occupied by a single electron as a magnetic field per second". Considering purely the area, and solving for r (radius) gives us:

$$r = \sqrt{\frac{27.3190988979}{\pi}}$$

$$r = 2.94888780065 \text{ metres}$$

Method 2: Using True Electron Rest Mass and Plancks Constant

From the paper: **McMahon, C.R. (2012)** *"Calculating the true rest mass of an electron – Based on McMahon field theory."*, the rest mass of a single electron, without any special relativity effects that makes the mass look larger, was found to be:

Free Electron rest mass with no motion relative to the observer = hR /c
= $2.42543489361 \times 10^{-35}$Kg.

Note: This rest mass ($2.42543489361 \times 10^{-35}$Kg) is actually smaller than the incorrect value ($9.109\,382\,15(45)\times10^{-31}$Kg) used in conventional physics as of 2017, because physicists of my time have not fully removed the relativity effects from the rest mass value they use- so their value is larger (thus incorrect) than my calculated true value.

Considering figure 6, we can say that (purely considering area):

$$\text{Plancks constant} = \text{Rest Mass of single electron} \times \text{area electron occupies as magnetic field per second}$$

ie:

$$h = \text{Electron rest mass} \times \pi r^2$$

Re- arranging to solve for r (radius), considering purely area, gives us:

$$r = \sqrt{\frac{h}{\text{Electron rest mass} \times \pi}}$$

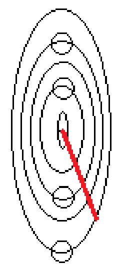
$$r = \sqrt{\frac{6.6260695729\times10^{-34}}{2.42543489361 \times 10^{-35} \times \pi}}$$

$$r = 2.94888780065 \text{ metres}$$

Notice the flux radius values from method 1 and 2 are perfectly identical- further evidence that McMahon field theory holds true.

Figure 8 depicts this flux radius value (McMahon Flux Radius)- which is a newly discovered physics constant- that holds true for the electron when it moves at the speed of light.

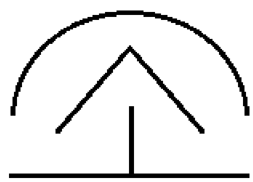
Magnetic field



Red line = McMahon Flux Radius length = 2.94888780065 metres

Figure 8: McMahon Flux Radius length, the magnetic field flux radius given off by a single electron moving at the speed of light. Note: if electrons move together, their magnetic fields can overlap, combine and appear larger. Thus, the magnetic field close to the source of the electron can be felt as a force on nearby metals if the flux tries to move through such nearby metals as its own current, but as we move further away magnetic force becomes harder to detect.

Let this new constant be represented by a symbol, of an arrow pointing to the edge of a circle, from the circles centre (ie: a radius arrow), as presented in figure 9.



McMahon Flux Radius = 2.94888780065 metres

References:

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