## The Least Quantum Of Circulation Constant Is Actually A Source Of Creation Dynamics In The Universe When Pertubation Is Considered

by

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Heisenberg's Uncertainty Principle has two main forms. One states the case that the uncertainty of the momentum of a quantum particle times the position or wavelength is equal to Plank's constant. The other states that the uncertainty of the energy of a quantum particle times its related time is also equal to Plank's constant. If we leave out the expression for mass of the particle, we arrive at what is known as the so-called Least Quantum of Circulation: Let LOC be understood for it.

The units of LQC are meter squared per second. When we allow for either pertubation of time or wavelength to occur, we find that the so called constant yields the dynamics of the universe. The constant can be considered to be a constant only when averaged. We cannot see the dynamics occuring since it is a non-local pertubation. The action is non-local while the reaction is local and very real. The process of uncertainty is a fact and constantly occurs without observation. This accounts for such things as the background energy flux that causes the Casimer force and perhaps even least quantum energy such as Nyquist noise for example.

The non-local pertubation action via uncertainty is filling the Universe with energy, some positive, some negative and the same applies to pressure as a result. When ordinary light energy is stripped of its velocity, mass is the result. Not mass as in a particle, but mass as an open field in defference to a closed field standing wave which defines the boundry conditions of a particles' Compton wavelength. Mass as an open field does not interact with ordinary particles of light; gravity does however.

The Universe is growing in its size, not only growing, but accelerating in its growth. Fasten your seatbelts, here we go!

## CirConst.mcdx

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$$f_{LM} := 1.003224805 \cdot 10^{01} \cdot Hz$$
  $t_{LM} := -f_{LM}^{-1} \cdot 1i$   $\lambda_{LM} := 8.514995416 \cdot 10^{-3} \cdot m$ 

$$t_{LM} \coloneqq -f_{LM}^{-1} \cdot 1i$$

$$\lambda_{LM} = 8.514995416 \cdot 10^{-3} \cdot m$$

$$O_C = \left(6.62606896 \cdot 10^{-34}\right) \frac{kg \cdot m^2}{s} \qquad O_C := \frac{\lambda_{LM}^{-2}}{t_{LM}} \qquad O_C = \left(7.27389618949i \cdot 10^{-4}\right) \frac{m^2}{s}$$

$$O_C \coloneqq \frac{\lambda_{LM}^2}{t_{LM}}$$

$$O_C = (7.27389618949i \cdot 10^{-4}) \frac{m^2}{s}$$

 $m_e = 9.109389700 \cdot 10^{-31} \cdot kg$ 

$$\rho \coloneqq \frac{d^{1}}{d\lambda_{LM}^{1}} \frac{m_{e} \cdot \lambda_{LM}^{2}}{t_{LM}}$$

$$\rho \coloneqq \frac{d^{1}}{d\lambda_{LM}^{-1}} \frac{m_{e} \cdot \lambda_{LM}^{-2}}{t_{LM}} \qquad \qquad \rho = \left(1.5563309618 i \cdot 10^{-31}\right) \frac{kg \cdot m}{s}$$

(Wavelength pertubation.)

$$F \coloneqq \frac{d^{1}}{dt_{LM}} \frac{m_{e} \cdot \lambda_{LM}}{t_{LM}} \qquad \qquad F = \left(7.80674912832 \cdot 10^{-31}\right) N$$

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Force

Momentum

(Time pertubation.)

$$E\!\coloneqq\!\frac{d^{1}}{dt_{LM}^{-1}}\frac{m_{e}\!\cdot\!\lambda_{LM}^{-2}}{t_{LM}} \qquad \qquad E\!=\!\left(6.64744330415\cdot10^{-33}\right)J$$

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Energy

(Time pertubation.)

$$E_S \coloneqq \frac{d^{\,1}}{d\,t_{LM}^{\,\,1}} \frac{m_e}{t_{LM}} \qquad E_S = \left(9.16823644279 \cdot 10^{\,-29}\right) \frac{J}{m^2} \qquad E_S = \left(9.16823644279 \cdot 10^{\,-29}\right) \frac{kg}{s^2}$$

$$E_S = (9.16823644279 \cdot 10^{-29}) \frac{kg}{s^2}$$

(Time pertubation.)

(The result is energy per meter squared.)

Also, force per meter squared equals pressure and energy/meter equals force.

$$P_S \coloneqq \frac{d^1}{dt_{IM}^{-1}} \frac{m_e}{t_{LM} \cdot \lambda_{LM}}$$

$$P_S \coloneqq \frac{d^4}{dt_{LM}^4} \frac{m_e}{t_{LM} \cdot \lambda_{LM}} \qquad \qquad P_S = \left(1.07671654474 \cdot 10^{-26}\right) \textit{Pa} \qquad \begin{array}{c} \textit{Positive Pressure,} \\ \textit{Universe expansion.} \\ \textit{(Time pertubation.)} \end{array}$$

Finally, Poynting power is negative and imaginary as shown below:

$$S_{LM} := \frac{d^2}{dt^2} \frac{m_e}{t_{total}}$$

$$S_{LM} = -1.8395604435i \cdot 10^{-27} \frac{W}{m^2}$$

$$S_{LM} \coloneqq \frac{d^2}{dt_{LM}} \frac{m_e}{t_{LM}} \qquad S_{LM} = -1.8395604435i \cdot 10^{-27} \frac{W}{m^2} \qquad S_{LM} = -1.8395604435i \cdot 10^{-27} \frac{kg}{s^3}$$

Negative radiation would tend to gobble up ordinary electromagnetic radiation generating dark matter in the process. This would explain why the Universe is not filled with light. Another way of expressing the mass of an electron is as follows:

$$a := 1.602177330 \cdot 10^{-19} \cdot C$$

$$q_o\!\coloneqq\!1.602177330\boldsymbol{\cdot} 10^{-19}\boldsymbol{\cdot} C \qquad L_Q\!\coloneqq\!1.070025882\boldsymbol{\cdot} 10^{-8}\boldsymbol{\cdot} H$$

$$\mu_o \coloneqq \frac{L_Q}{\lambda_{LM}} \qquad \qquad \mu_o = \left(1.25663706171 \cdot 10^{-6}\right) \frac{henry}{m} \qquad = \text{magnetic permeability}$$
 of free space

$$l_q \coloneqq 2.817940920 \cdot 10^{-15} \cdot m \qquad \qquad m'_e \coloneqq \frac{\mu_o \cdot {q_o}^2}{4 \cdot \pi \cdot l_q} \qquad \qquad m'_e = \left(9.10938969337 \cdot 10^{-31}\right) \; kg$$

From above for mass:  $m_e = (9.1093897 \cdot 10^{-31}) \ kg$ 

Restating the magnetic permeabilty for Es above:

$$E'_{S} \coloneqq \frac{d^{1}}{dt_{LM}^{-1}} \frac{1}{t_{LM}} \cdot \frac{L_{Q}}{\lambda_{LM}} \cdot \frac{q_{o}^{2}}{4 \cdot \pi \cdot l_{g}} \qquad \qquad E'_{S} = \left(9.16823643612 \cdot 10^{-29}\right) \frac{J}{m^{2}}$$

Taking the derivative with respect to lambda:  $E_S = (9.16823644279 \cdot 10^{-29}) \frac{J}{m^2}$  (Wavelength pertubation.) See below:

$$P'_{S} \coloneqq \frac{d^{1}}{d\lambda_{IM}^{-1}} \left( \frac{d^{1}}{dt_{IM}^{-1}} \frac{1}{t_{LM}} \cdot \left( \frac{L_{Q}}{\lambda_{LM}} \cdot \frac{q_{o}^{2}}{4 \cdot \pi \cdot l_{g}} \right) \right) \qquad \qquad P'_{S} = -1.07671654396 \cdot 10^{-26} \ Pa$$

Notice that the above pressure is now negative where:  $P_S = (1.07671654474 \cdot 10^{-26}) Pa$ 

(Time pertubation.)

From the above equations, a wavelength pertubation produces negative pressure (vacume) which has a tendency to compress space matter, while a time pertubation produces a positive pressure which is expansion of space matter.

Note that Galaxies greater than to be expected gravitational force (shown as faster than expected rotation velocity) as well as expansion of the universe may be explained by the above pressure results.

The least quantum of circulation taken as a derivative with respect to time yields velocity in the imaginary domain when the square root of the result is taken as shown below.

$$t_{L\!M}\!\coloneqq\!f_{L\!M}^{-1} \qquad \qquad v_{L\!M}\!\coloneqq\!\sqrt{\frac{d}{d\,t_{L\!M}}\!\left(\!\frac{\lambda_{L\!M}^{-2}}{t_{L\!M}}\!\right)} \qquad \qquad v_{L\!M}\!=\!\left(8.54245461579i\cdot 10^{-2}\right)\frac{m}{s}$$

Where also:  $v'_{LM} := \lambda_{LM} \cdot (f_{LM} \cdot 1i)$   $v'_{LM} = (8.54245461579i \cdot 10^{-2}) \frac{m}{s}$ 

Then also: 
$$t'_{LM} = (f_{LM} \cdot 1i)^{-1}$$
  $t'_{LM} = -9.96785560939i \cdot 10^{-2} s$ 

The above time t'subLM is the same time that begins this paper on page 1.

$$E'_{LM} \coloneqq m_e \cdot \left(\lambda_{LM} \cdot t'_{LM}^{-1}\right)^2 \qquad \qquad E'_{LM} = -6.64744330415 \cdot 10^{-33} \, J$$
 where from above, 
$$E = \left(6.64744330415 \cdot 10^{-33}\right) \, J$$

The energies are conjugate to each other and as a result can provide attraction.

$$\begin{split} \rho' &:= m_e \cdot v'_{LM} \qquad \rho' = \left(7.78165480898i \cdot 10^{-32}\right) \frac{kg \cdot m}{s} \qquad \text{(No pertubation.)} \\ &\frac{\rho}{\rho'} = 2 \qquad \qquad \rho = \left(1.5563309618i \cdot 10^{-31}\right) \frac{kg \cdot m}{s} \qquad \text{Notice that momentum p is twice momentum p'.} \end{split}$$

Then, there is always a least momentum that is never zero which ensures pertubation of time and wavelength as well as electrogravitational force and the other forces as well.

$$\begin{split} h' \coloneqq & m_e \cdot v'_{LM}^{\ 2} \cdot t'_{LM} = \left(6.62607550274 i \cdot 10^{-34}\right) \frac{kg \cdot m^2}{s} \\ h'' \coloneqq & m_e \cdot v'_{LM} \cdot \lambda_{LM} = \left(6.62607550274 i \cdot 10^{-34}\right) \frac{kg \cdot m^2}{s} \end{split}$$
 Both h are positive and are in the imaginary domain.

Where: 
$$v'_{LM}^2 \cdot t'_{LM} = (7.27389618949i \cdot 10^{-4}) \frac{m^2}{s}$$

And: 
$$v'_{LM} \cdot \lambda_{LM} = \left(7.27389618949i \cdot 10^{-4}\right) \frac{m^2}{s}$$

The result of the above examination of the Least Quantum of Circulation indicates a rich source of structure that defines the nature of the observed Universe. Therefore, there is much more to it than a casual glance will show.

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