

**MC Physics – Force Unification Using Mono-Charges- Supplemental**  
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MC Physics previously proposed a force unification theory based on all forces being derived from electro-static charge force, whose force strength was caused by and only interacted with and between quantized mono-charges [1]. Mono-charges and the F\*SCoTt process to build all particles, atoms and matter were described in a separate paper [2]. Mono-charge proof was theorized by a real photon model with mass and sub-structure, relativity impacts on charges with a faster/ higher inflection point and force liberation from bosons [3].

It was noted in science and interpreted by MC Physics that measurements of various forces showed that force was modified by relativistic effects through changes in mono-charge strength and changes (compression or expansion) in space. Both Coulomb's and Newton's Laws for static, normal space conditions, were based on prior measurements that showed that static gravity and binary based electric and magnetic forces were propagated at  $1/R^2$ , or a spherical surface force dilution. For EMF it was observed that the projected forces from the weakest mono-charges travelling at  $c$  had a circular force dilution ( $1/R$ ) and, while travelling, was seen as a moving cylinder unit force. This was considered as being caused by compressed (toward 2 dimensional) space. Further, it was observed that strong nuclear force between static and very strong mono-charges has a very strong bonding force, but limited force projection distance limited to near atomic, due to spatial expansion/ de-compression.

From that theory, MC Physics proposed [1] a modified Coulomb's Law equation (which also replaced Newton's Law of Gravitation) between two mono-charges (M1 and M2) of:

$$\text{Charge Force, } F = C_1 * C_2 / R^z \qquad \text{Equation 1}$$

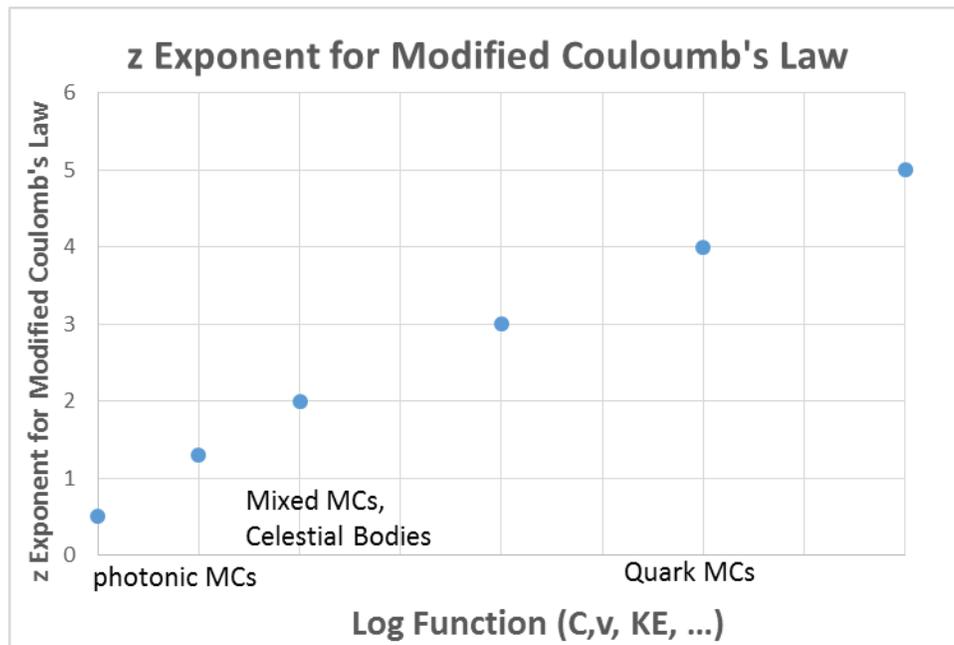
Where  $C_1$  and  $C_2$  are the electrostatic charge strengths of the individual quantized mono-charges;  $R$  is the normalized distance that the mono-charges are apart, where 'normalized' means as measured in our normal 3 dimensional space; and  $z$

is the average relativistic impacted space exponent of the 2 individual mono-charges. Therefore, the exponent to R in that equation is expected to be  $z = 1.0$  (estimate 0.5 to 1.5) for relativistic compressed (toward 2D) space between lowest known charged mono-charges (e.g. photons of light);  $z = 2$  for normal space mixed low and high charged mono-charges (e.g. in binary mass bodies, as for gravity); and  $z > 3-5$  for static stretched space between highest strength quark interactions. Note that Force, F, keeps a normalized space force unit with this spatial adjustment. The actual upper and lower limits to z are unknown.

The z exponent value in equation 1 comes from an averaged z exponent value for each individual mono-charge in that interaction. The combined z exponent for the total force transaction is proposed as:

$$z = (z_1 * z_2)^{0.5} \qquad \text{Equation 2}$$

That individual MC's z exponent is considered a function of one or more characteristics of each mono-charges - charge strength, velocity or kinetic energy following the generalized semi-log plot given below. The individual mono-charge z exponent is preferred as a straight one-pass value determination and not as an iterative process or utilizing prior or back-time values.



The possible functions considered for the individual MC's z exponent were based on:

- 1) only mono-charge strength at the time of calculation;
- 2) only velocity based as  $v$  or  $v/V_t$  or  $v^2/V_t^2$ ; and/ or
- 3) both  $v$  and  $C$  as described in kinetic energy ( $KE = \frac{1}{2} * C * v^2$ ).

Most masses are overall neutral in electro-static charge with no overall net electro-static charge force projection. However, it still has localized charge force projections due to structure. The total force between two mass objects (with many, many mono-charges of various mixed charge types and strengths) is a sum of the forces between each and every mono-charge that exists in each mass objects, per Equation 1 using Equation 2 and further possibly modified by a structural inefficiency factor for the repel force as previously described [1].

## References

- [1] Kenneth D. Oglesby, viXra Nuclear and Atomic Physics category paper entitled: "MC Physics- Fundamental Force Unification using Mono-Charges", <http://vixra.org/pdf/1701.0002v1.pdf>
- [2] Kenneth D. Oglesby, viXra paper entitled "MC Physics Model of Sub-Atomic Particles using Mono-Charges", <http://viXra.org/pdf/1611.0080v1.pdf>
- [3] Kenneth D. Oglesby, viXra High Energy Particle Physics category paper entitled: "MC Physics- Model of a Real Photon with Structure and Mass", <http://vixra.org/pdf/1609.0359v1.pdf>
- [4] [www.mcphysics.org](http://www.mcphysics.org)