



Discrete Time Locations

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This idea was conceived in 2004 yet paper after paper was rejected by standard journals and no professor agreed to take this seriously.

I have refined the ideas and even developed a method for testing them, however, the mathematics needs to be worked out when conceiving of an apparatus.

The concept is perhaps too simple to be true; however, the simplest solution is usually the most elegant.

Because no complex calculations are required to convey the idea, none were included in this introductory paper.

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$$U_{\max} = \delta r/c$$

Preamble

Modern theoretical ideas and metaphors about the nature of the universe have not yet detailed an understanding behind the mechanism of forces.

We take for granted that forces act positively, negatively or not at all on particles in order to sustain the phenomenon that the universe desires to reach its lowest energy state.

Yes, we have defined force carriers, and diagrams about how they mathematically interact, however we have no understanding of the mechanism of action that they undertake.

This paper is an attempt to provide a mechanism for external interaction between various particles.

Indivisible space and time

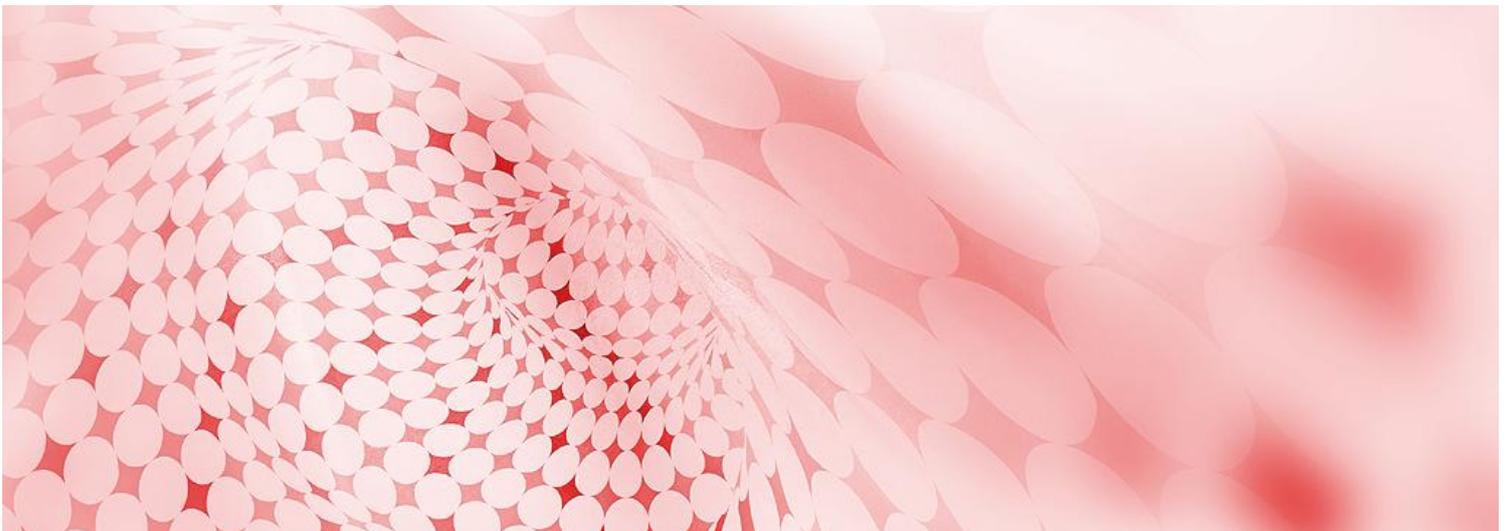
There is a basic problem that the idea of space breaks down when we try to probe smaller and smaller dimensions.

When discussing the smallest possible distance (δr) we can describe a maximum frequency (U_{\max}) that can be the cause of this length. And because we are speaking about a frequency, then it will be subject to time dilation and therefore space will change based on our understanding of special relativity.

At this frequency particles will be restricted to a single phase of the frequency at all times.

$$\phi = 2\pi @ (U_{\max})$$

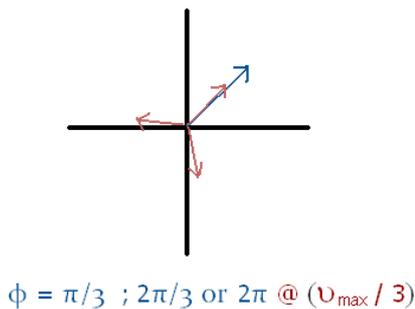
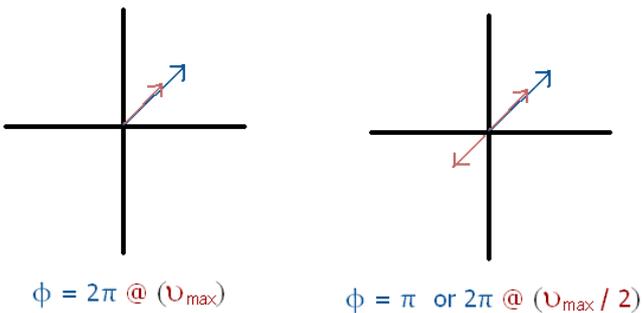
Particles that have space-time oscillations at this frequency will interact with this frequency. The only monophasic force that is known is the **gravitational force**.



We know that different wave frequencies can occupy the same space and form a superposition. When the maximum frequency is divided by half ($v_{max} / 2$), then particles will be able to occupy two locations on this wave.

$$\phi = \pi \text{ or } 2\pi @ (v_{max} / 2)$$

There is a biphasic force that is known, this is called the **electromagnetic force**.



Similarly when the frequency is one third of the original frequency ($v_{max} / 3$), there are three places on this frequency that the particle can occupy: $0, \delta r$ or $2 \cdot \delta r$ which correspond to the three phases:

$$\phi = \pi/3 ; 2\pi/3 \text{ or } 2\pi @ (v_{max} / 3)$$

And yes, there is a triphasic force called the **nuclear strong force**.

Understanding the strength of these forces and their effects can be guessed at. My best hypothesis would be that the force strength is proportional to the negative of $\cos(\phi)$. This would make individual triphasic particles attract unlike particles and repel like ones.

Further Questions

1. Would it be δr that dictates v_{max} or the other way around?
2. What other forces could (v_{max} / n) predict?
3. How can this be tested experimentally? (For those interested, I have several ideas)
4. There is an inherent problem with the monophasic frequency in that it would always repel, could every particle in the universe be out of phase from one another at this frequency? Or is there another mechanism that can resolve this? I suspect that particles may be always 'trying' to find a balance between their phase forces.