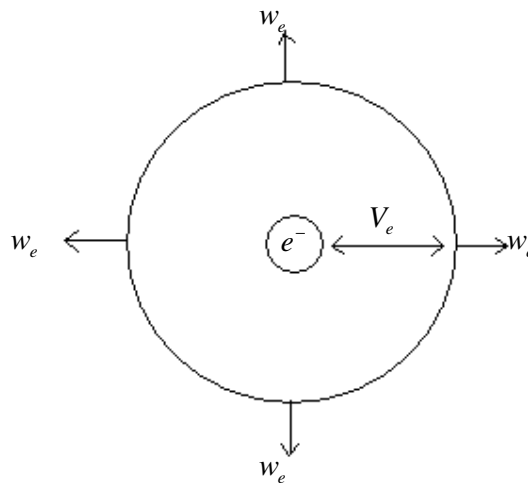


### The Speed of the Forces

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Particles are not waves. They are localized wave emitters.



For the electron:  $w_e = c - 5.1 \times 10^{-5} \text{ ms}^{-1}$

This speed is variable with distance, generating an acceleration field.  
The interactions with the waves are transmitted to the particle, telling it where to go.

The oscillating centre can be divided, for example, into two half-particles that pass an obstacle and then reconstruct the particle afterward.

The wave communicates with the particle at the speed  $V = c^2 / w$  which is the general formula for the speed of the forces.

$$c^2 t^2 - x^2 = k \quad \Leftrightarrow \quad x = \sqrt{c^2 t^2 - k}$$

$$V = \frac{dx}{dt} = \frac{c^2}{w}$$

For the electron:  $V_e = c + 5.1 \times 10^{-5} \text{ ms}^{-1}$

The interaction wave is composed of magnetic photons that are undetectable and are longitudinal waves. This speed is always greater than light speed.

## Aberration of the forces

The forces with finite speeds, have no aberration because the interaction happens at half distance of the particles and so a time delay exists but is equal to both particles.

If aberration exists, the orbits of the electrons in the atoms would be unstable, and that doesn't happens.

## Gravity speed

$$V = \frac{c^2}{w} \quad \text{and} \quad Mw^2 = hf_M = \frac{hc}{\sqrt{k}}$$

$$h = 6.6 \times 10^{-34} ; \quad c = 3 \times 10^8 ; \quad k = 1.9 \times 10^{-34} , \quad M = \text{mass}$$

$$V = \frac{c^2 \sqrt[4]{k}}{\sqrt{hc}} \sqrt{M}$$

Sun gravity speed:

$$M = 2 \times 10^{30} \text{ kg} \quad \Leftrightarrow \quad V_s = 1.1 \times 10^{36} \text{ ms}^{-1}$$

Universe gravity speed:

$$M_U = 1.8 \times 10^{53} \quad \Leftrightarrow \quad V_U = 3.2 \times 10^{47}$$