

Reactionless propulsion

Antonio Saraiva – 2010-09-20
ajps2@hotmail.com

See the Unified Absolute Relativity Theory at:

www.wbabin.net/saraiva/saraiva305.pdf
www.wbabin.net/saraiva/saraiva306.pdf
www.wbabin.net/saraiva/saraiva307.pdf
www.wbabin.net/saraiva/saraiva328.pdf
www.wbabin.net/stham/saraiva347.pdf
www.wbabin.net/stham/saraiva366.pdf

It's possible to violate, locally, the momentum conservation law and make a propulsion system with no reaction mass.

UART general energy formula:

$$E = hf \frac{c^2}{w^2} = hfn^2 ; \quad n = \frac{c}{w}$$

h – Planck constant; f – Frequency; c – Light speed; w – Phase speed;
n – Refractive index.

Group speed:

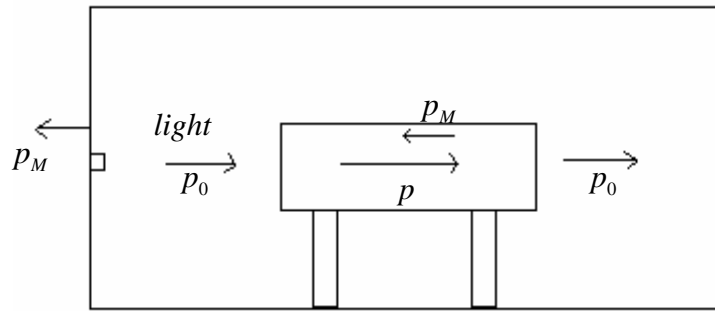
$$V = \frac{c^2}{w} \Leftrightarrow E = \frac{hf}{n_G^2} ; \quad n_G = \frac{c}{V}$$

n_G -- Group speed index.

Momentum:

$$p = \frac{E}{c} \Leftrightarrow p = p_0 n^2$$

Reactionless system, $n = 1.5$:



$$p_0 = p - p_M = p_0 n^2 - p_M$$

$$\Leftrightarrow p_M = p_0 (n^2 - 1)$$

Frequency:

$$f = n^2 f_0$$

Quantum mechanics admit energy conservation violations in time:

$$\Delta E \Delta t = h$$

So, it must admit momentum conservation violations in space:

$$\Delta p \Delta x = h$$

The reactionless action is the mechanism of the forces. This mechanism generates pushes and pulls.

There's a local violation of the momentum conservation, but if we use a frame out of our universe the violation disappears if the universe moves a little.

If by reactionless action we move a mass of 100 Tons a distance of 10 light years, the universe moves $10^{-31} m$.

Our universe can be a subatomic particle in another megauniverse.