

## Stiffness of Superconductor Levitation

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See Unified Absolute Relativity Theory at:

[www.wbabin.net/saraiva/saraiva105.pdf](http://www.wbabin.net/saraiva/saraiva105.pdf)  
[www.wbabin.net/saraiva/saraiva223.pdf](http://www.wbabin.net/saraiva/saraiva223.pdf)

According to orthodox physics the stiffness of the superconductor levitation is due to flux pinning of the magnetic flux lines. That means that the flux lines are trapped in the defects of the crystalline structure of the superconductor.

Is evident that this is not correct because the magnets above the superconductors can rotate.

The correct origin of the stiffness is because the acceleration field of the superconductor changes its signal.

So the force at a small distance is repulsive, passes a zero value and at greater distance is attractive.

Unified force:

$$F = Q_m^2 g$$

$Q_m$  -- Magnetic charge of the magnet (Weber = Magnetic flux)

$g$  – Unified acceleration of the superconductor

$$Q_m^2 = \frac{hf_0 \sqrt{c^2 - v^2} (c^2 - vw_0)}{c^3 (w_0 - v)}$$

$$w_0 = c - 4.876 \times 10^{-3} \text{ ms}^{-1} ; \quad f_0 = 1.236 \times 10^{20} \text{ Hz}$$

$v^2$  -- Unified gravitational potential

Unified acceleration (mathematical formula):

$$g = \frac{kc^3 f_0^3 (c^2 - v^2)^{3/2} (w_0 - v)}{(c^2 - vw_0)^4}$$

Natural formula:

$$g = \frac{kc^3 f_0^3 (c^2 - v^2)^{3/2} (w_0 - v)(c^2 - vw_0)^2}{(c^2 - vw_0)^6 + a}$$

