

Mathematical and Natural Behaviour of a Phenomenon

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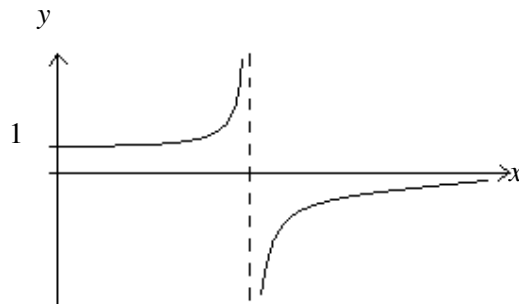
See Unified Absolute Relativity Theory at:

<http://www.wbabin.net/saraiva/saraiva105.pdf>
<http://www.wbabin.net/saraiva/saraiva223.pdf>

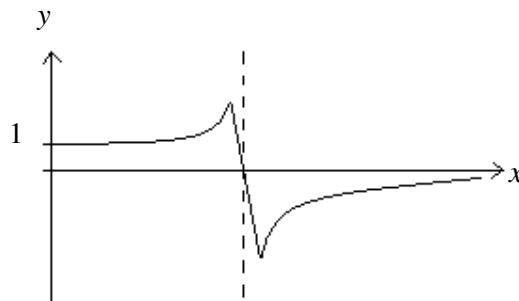
In nature there are no infinities.
When a mathematical equation has an asymptote value of infinity the true natural value is zero.

Mathematical behaviour

$$y = \frac{1}{1-x}$$



Natural behaviour



Natural equation

$$y = \frac{(1-x)}{(1-x)^2 + a} ; \quad a \ll 1$$

x for maximum and minimum

$$x_M = 1 \pm \frac{\sqrt{a}}{2}$$

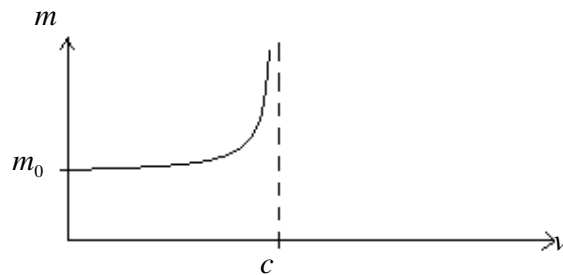
y maximum and minimum

$$y_M = \pm \frac{2}{5\sqrt{a}}$$

Overtake light speed

Mathematical equation

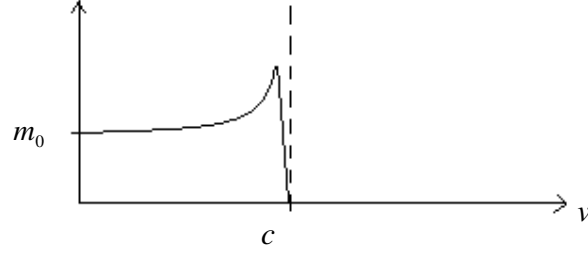
$$m = \frac{m_0}{(1-v^2/c^2)^{3/2}} \Leftrightarrow m = m_0 \left(\frac{c}{2\Delta v} \right)^{3/2} ; \quad v = c - \Delta v$$



Natural equation

$$m = m_0 \frac{(1-v^2/c^2)^{3/2}}{\sqrt{(1-v^2/c^2)^6 + a}} ; \quad a \ll 1$$

m



$$v_{MX} = c\sqrt{1-\sqrt[6]{a}} ; \quad m_{MX} = \frac{m_0}{\sqrt[2]{2^4 a}}$$

$$\Delta v_{MX} = c - v_{MX} \Leftrightarrow \Delta v_{MX} = \frac{c\sqrt[6]{a}}{2}$$

$$v = c - \Delta v \Leftrightarrow m = m_0 \sqrt{\frac{8c^3 \Delta v^3}{64\Delta v^6 + ac^6}}$$

Calculation of (a) for the electron

$$\Delta v = \Delta w_0 = \frac{kf_0^2}{2c} = 4.875 \times 10^{-3} ; \quad m_0 = 9.11 \times 10^{-31} \text{ kg}$$

$$f_0 = 1.236 \times 10^{20} \text{ Hz}$$

$$m = m_0 \left(\frac{c}{2\Delta v} \right)^{3/2} = 4.911 \times 10^{-15}$$

$$4.911 \times 10^{-15} = 9.11 \times 10^{-31} \sqrt{\frac{8c^3 \Delta v^3}{64\Delta v^6 + ac^6}}$$

$$a = 3.956 \times 10^{-67}$$

$$m_{MX} = \frac{9.11 \times 10^{-31}}{\sqrt[2]{2^4 3.96 \times 10^{-67}}} = 2.57 \times 10^{-14} \text{ kg} = 1.44 \times 10^{22} \text{ eV}$$

$$\Delta v_{MX} = \frac{c\sqrt[6]{a}}{2} = 1.284 \times 10^{-3}$$

$$\Delta v_{MX} = \Delta v / 3.8$$

$$v_{MX} / c = 0.999999999996$$

