PROTON PUZZLE

The muon mass is about 200 times the electron mass so the muon is about 8 million more times likely to be inside the proton than the electron.
So we can imagine that,
(see Vixra: 1711.0299; Author Piscedda Giampaolo)
the volume flux, caused by the presence of the muon inside the proton volume, in a certain time interval $\triangle t$, depends on the number of times that in $\triangle t$ the muon is present inside the proton.
From the formula $1^{(6')}$
(see Vixra: 1711.0299; Author: Piscedda Giampaolo)
we obtain: $V_p^i = V_p^f (1 - m\mu / M_p)$.

Let r_p^f = 0.84184 fm be the charge radius of Muonic hydrogen;

then from $\dfrac{V_p^f}{V_p^i} = 1 - \dfrac{m_\mu'}{M_p}$, we obtain $m_\mu' = h\nu' < m_\mu$

ν' represent the number of times, that the muon, has been found inside the volume of the proton, in a second of time elapsed.
We deduce that the measurement of the radius value of the muon proton carried out by scientists in 2010, does not represent a more precise measure than the one carried out in

[2013, but simply, that in the measure of 2013](#), the number of times, that the muon has been found inside the proton, is greater than the experiment of 2010; i.e. the muon's orbity was closer to the proton.

It is as if the particle appeared and disappeared continuously over time, at regular intervals and with it, it's volume flux in the ether J_G. So at points in the space, where it is less likely to find the particle, ν will be smaller; this does not mean that in such points of space the particle has a smaller mass, but simply that it appears and disappears within longer time intervals and it will therefore be less likely to interact with respect to the points in space, where the ν has a high value.

Since the particle can be considered equivalent to the ether, we deduce that the ether oscillates in the time.

We deduce that a particle is simultaneously present in all points of space, including those in which $\nu \to 0$.

It can be thought that as the temperature decreases, the ν of the particle decreases, causing a decrease in its volume (see Vixra:1711.0390; Author; Piscedda Giampaolo).

Giampaolo Piscedda

Giampaolo Piscedda

E-mail: giampaolo.piscedda@yahoo.it

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The size of the proton

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Proton Structure from the Measurement of 2S- 2P Transition Frequencies of Muonic Hydrogen

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The Rydberg Constant and Proton Size from Atomic Hydrogen

Axel Beyer

Erstgutachter: Prof. Dr. Theodor W. Hänsch
Zweitgutachter: Prof. Dr. John him Radley
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Muonic hydrogen and the Proton Radius Puzzle
Nuclear structure from Laser spectroscopy of light muonic atoms

Randolf Pohl MPQ, Garching for the CREMA collaboration

Muonic hydrogen and the proton radius puzzle

Randolf Pohl
Max Planck Institute für Quantenoptik, 85748 Garching, Germany

Ronald Gilman
Department of Physics & Astronomy, Rutgers University, Piscataway, NO 08854-8019, USA

Gerald A. Miller
Department of Physics, Univ. of Washington, Settle, WA 98195-1560, USA

Krzysztof Pachucki
Faculty of Physics, University of Warsaw, Hoża 69, 00-681 Warsaw, Poland