Alignment Energy of Diverse Untouchable Electron Mass

Janez Špringer*
Cankarjeva cesta 2, 9250 Gornja Radgona, Slovenia, EU

*Corresponding Author: Janez Špringer, Cankarjeva cesta 2, 9250 Gornja Radgona, Slovenia, EU

Abstract: The alignment energy of a diverse untouchable electron mass in Heraclitean dynamics has been calculated.

Keywords: Alignment energy, diverse untouchable electron mass, Heraclitean dynamics, extremely low frequency electromagnetic waves

1. Introduction

In the previous paper [1] the diverse untouchable mass \( m \) of the ordinary matter \( m_1 \) being defined in Heraclitean dynamics as \( m = \sqrt{m_1, m_2} = \frac{h}{c} \) (with \( m_2 \) as a co-mass) has been proposed. Such a mass should be sustained by the alignment energy \( E_{alignment} = \left( \frac{R_{unaligned}}{R_{aligned}} - 1 \right) m_1 c^2 \) where, firstly, \( R_{unaligned} = \frac{m_2}{m_1} s(1) = \frac{m_2^2}{m_1^2} s(1) \) being the unaligned ratio of co-mass \( m_2 \) to mass \( m_1 \) counted on the double surface by considering the corresponding unit \( s(1) = \left( 2 - \frac{1}{\sqrt{1 + \pi^2}} \right) \) and, secondly, the aligned ratio \( R_{aligned} \) being taken for large numbers as the round down value of the unaligned ratio \( R_{aligned} \equiv round\down\left( R_{unaligned} \right) \).

The alignment energy of the diverse untouchable electron mass in Heraclitean dynamics is the subject of interest of this paper.

2. The Diverse Untouchable Electron Mass

Inputting data from reference [2] into formulas from Section 1 we find the alignment characteristics of the diverse untouchable electron mass

\[
m = \sqrt{m_{electron} \cdot \frac{h}{c}}.
\]

Thus, with the help of data

\[
h = 6,626,070,15 \cdot 10^{-34} Js.
\]
\[
c = 2,997,924,58 \cdot 10^{6} ms^{-1}.
\]
\[
Da = 1,660,539,066,60 \cdot 10^{-27} kg.
\]
\[
m_{electron} = 0,000,548,579,909,065 (16) Da.
\]
\[
m = \frac{h}{c} = 1,486,680,56 \cdot 10^{-21} kg = 895,299,961,438,727,651,893,487,797,102,67 Da.
\]

And

\[
s(1) = 1,696,685,528,946,647,135,980,275,923,944 \ldots
\]

The unaligned ratio of the electron diverse untouchable mass is given:

\[
R_{electron\ unaligned} = \left( \frac{m}{m_{electron}} \right)^2 \cdot s(1) = 4,519,170,127,823,110,268,34.
\]

Abstract: The alignment energy of a diverse untouchable electron mass in Heraclitean dynamics has been calculated.

Keywords: Alignment energy, diverse untouchable electron mass, Heraclitean dynamics, extremely low frequency electromagnetic waves

1. Introduction

In the previous paper [1] the diverse untouchable mass \( m \) of the ordinary matter \( m_1 \) being defined in Heraclitean dynamics as \( m = \sqrt{m_1, m_2} = \frac{h}{c} \) (with \( m_2 \) as a co-mass) has been proposed. Such a mass should be sustained by the alignment energy \( E_{alignment} = \left( \frac{R_{unaligned}}{R_{aligned}} - 1 \right) m_1 c^2 \) where, firstly, \( R_{unaligned} = \frac{m_2}{m_1} s(1) = \frac{m_2^2}{m_1^2} s(1) \) being the unaligned ratio of co-mass \( m_2 \) to mass \( m_1 \) counted on the double surface by considering the corresponding unit \( s(1) = \left( 2 - \frac{1}{\sqrt{1 + \pi^2}} \right) \) and, secondly, the aligned ratio \( R_{aligned} \) being taken for large numbers as the round down value of the unaligned ratio \( R_{aligned} \equiv round\down\left( R_{unaligned} \right) \).

The alignment energy of the diverse untouchable electron mass in Heraclitean dynamics is the subject of interest of this paper.

2. The Diverse Untouchable Electron Mass

Inputting data from reference [2] into formulas from Section 1 we find the alignment characteristics of the diverse untouchable electron mass

\[
m = \sqrt{m_{electron} \cdot \frac{h}{c}}.
\]

Thus, with the help of data

\[
h = 6,626,070,15 \cdot 10^{-34} Js.
\]
\[
c = 2,997,924,58 \cdot 10^{6} ms^{-1}.
\]
\[
Da = 1,660,539,066,60 \cdot 10^{-27} kg.
\]
\[
m_{electron} = 0,000,548,579,909,065 (16) Da.
\]
\[
m = \frac{h}{c} = 1,486,680,56 \cdot 10^{-21} kg = 895,299,961,438,727,651,893,487,797,102,67 Da.
\]

And

\[
s(1) = 1,696,685,528,946,647,135,980,275,923,944 \ldots
\]

The unaligned ratio of the electron diverse untouchable mass is given:

\[
R_{electron\ unaligned} = \left( \frac{m}{m_{electron}} \right)^2 \cdot s(1) = 4,519,170,127,823,110,268,34.
\]
Alignment Energy of Diverse Untouchable Electron Mass

But unfortunately, the precision on the decimal place is absent due to in the calculation applied insufficiently accurate data. So for the unaligned ratio of the electron diverse untouchable mass we can only estimate:

\[ 4519170127823110268 < R_{\text{electron\,unaligned}} < 4519170127823110269. \]  (8)

Regardless, the aligned ratio of the electron diverse untouchable mass remains the same (See appendix):

\[ R_{\text{electron\,aligned}} \equiv 4519170127823110268. \]  (9)

So, the alignment energy of the electron diverse untouchable mas can be estimated as follows:

\[ m_{\text{alignment}} < \left( \frac{4519170127823110269}{4519170127823110268} - 1 \right) \cdot 0,00054857909065 \text{ Da} = 1,214 \cdot 10^{-22} \text{Da}. \]  (10)

This gives the energy of the diverse untouchable electron mass in the next range:

\[ 0 < E_{\text{electron\,alignment}} < 1,13 \cdot 10^{-13} \text{ eV}. \]  (11)

Then for energy equivalents we have, for frequency:

\[ 0 < \nu_{\text{alignment}} < 27,34 \text{ Hz}. \]  (12)

And for wavelength:

\[ \infty > \lambda_{\text{alignment}} > 10965 \text{ km}. \]  (13)

Some alignment characteristics of the diverse untouchable electron mass are collected in Table 1.

Table 1. Some alignment characteristics of the diverse untouchable electron mass

<table>
<thead>
<tr>
<th>( m_{\text{electron}} )</th>
<th>( R_{\text{unaligned}} )</th>
<th>( R_{\text{aligned}} )</th>
<th>( m_{\text{alignment}} )</th>
<th>( \nu_{\text{alignment}} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,000 548 579 909 065 Da</td>
<td>(&lt; 4519170127823110269 &lt; 4519170127823110268)</td>
<td>4519170127823110268</td>
<td>&lt;1,214.10^{-22} Da</td>
<td>&lt;27,34 Hz</td>
</tr>
</tbody>
</table>

The calculated alignment energy \( E_{\text{alignment}} \) of the diverse untouchable electron mass \( m = \sqrt{m_1, m_2} = \sqrt{m_{\text{electron}} \cdot \frac{h}{e}} = \sqrt{\frac{h}{e}} \) is interesting since its frequency equivalent being \( \nu_{\text{alignment}} < 27,34 \text{ Hz} \) belongs to extremely low frequency (ELF) radio waves which are otherwise generated by lightning and natural disturbances in Earth’s magnetic field. [3]

3. Conclusion

The alignment energy of a diverse untouchable electron mass in Heraclitean dynamics belongs to ELF electromagnetic waves.

DEDICATION

To enlightenment in anticipation of a merry Christmas.

Figure 1. Enlightenment [4]
REFERENCES


APPENDIX

For on the double surface aligned large ratio holds [1]:

\[ R_{\text{aligned}} = n \left( 2 - \frac{1}{\sqrt{1 + \frac{\pi^2}{n^2}}} \right) \cong n \in \mathbb{N}. \]  \hspace{1cm} (a)

If a regular calculator does not detect the difference between \( \approx \) and \( = \) we can use a trick with a friendlier formula

\[ R_{\text{aligned}} \cong n \left( 1 + \frac{1}{2} \frac{\pi^2}{n^2} \right) \cong n \in \mathbb{N}. \]  \hspace{1cm} (b)

If even now we do not perceive the difference between \( \cong \) and \( = \) for large numbers (as in our case where \( n = 4519170127823110268 \)) we can apply the relation

\[ R_{\text{aligned}} \cong \text{ROUNDDOWN}(R_{\text{unaligned}}) = n \in \mathbb{N}. \]  \hspace{1cm} (c)