Errata

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A Multimeasurand ISO GUM Supplement is Urgent

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Corrections made by the author after publication are listed below.

1. In Section 2.1, the third paragraph should read
   The eigenvalues are all positive, as they should be by definition of the correlation matrix:
   2.403 564 371 235 8685, 0.596 435 606 493 034, 2.227 109 758 149 771 \times 10^{-8}

2. In Section 2.2 the first sentence should be replaced with:
   “In the paper of Abreu et al., [19] the measured results of \( \tau \) topological branching ratios
   for the reactions:
   \( B_1(\tau^- \to h^- \text{ neutrals}) \), \( B_2(\tau^- \to h^+ 2h^- \text{ neutrals}) \), \( B_3(\tau^- \to 2h^+ 3h^- \text{ neutrals}) \),
   are presented (see p. 636 and Table 6). Their data can be collected into the following
   data structure:

3. In Section 2.3, Table XII was split between two pages. For clarity sake, the entire table is
   reprinted below.

   TABLE XII. Correlation coefficients between measurements of branching fractions.

<table>
<thead>
<tr>
<th>( C_\tau )</th>
<th>( B_\mu )</th>
<th>( B_p )</th>
<th>( B_h )</th>
<th>( B_p/B_h )</th>
<th>( B_h/B_\mu )</th>
</tr>
</thead>
<tbody>
<tr>
<td>( B_\mu )</td>
<td>1</td>
<td>0.50</td>
<td>0.48</td>
<td>-0.42</td>
<td>-0.39</td>
</tr>
<tr>
<td>( B_p )</td>
<td>1</td>
<td>0.50</td>
<td>0.58</td>
<td>0.08</td>
<td></td>
</tr>
<tr>
<td>( B_h )</td>
<td></td>
<td>1</td>
<td>0.07</td>
<td>0.53</td>
<td></td>
</tr>
<tr>
<td>( B_p/B_h )</td>
<td></td>
<td></td>
<td>1</td>
<td>0.45</td>
<td></td>
</tr>
<tr>
<td>( B_h/B_\mu )</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

4. In Section 2.4, the table immediately after the first paragraph concatenated the values of the
   elementary charge and the Planck Constant for the CODATA:1998 values, as well as misspelling
   Planck. The corrected table is printed in its entirety below.
<table>
<thead>
<tr>
<th>CODATA:1986 [21]</th>
<th>Symbol</th>
<th>Units</th>
<th>Value (Uncertainty)×scale</th>
<th>Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary charge</td>
<td>e [C]</td>
<td></td>
<td>1.602 177 33(49) ×10−19</td>
<td>e  h  m_e</td>
</tr>
<tr>
<td>Planck constant</td>
<td>h [J s]</td>
<td></td>
<td>6.626 075 5(40) ×10−34</td>
<td>0.997</td>
</tr>
<tr>
<td>Electron mass</td>
<td>m_e [kg]</td>
<td></td>
<td>9.109 389 7(54) ×10−31</td>
<td>0.975 0.989</td>
</tr>
<tr>
<td>1/α(0)</td>
<td>a(0)−1</td>
<td></td>
<td>137.035 989 5(61)</td>
<td>−0.226 −0.154−0.005</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CODATA:1998 [22]</th>
<th>Symbol</th>
<th>Units</th>
<th>Value (Uncertainty)×scale</th>
<th>Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary charge</td>
<td>e [C]</td>
<td></td>
<td>1.602 176 462(63) ×10−19</td>
<td>e  h  m_e</td>
</tr>
<tr>
<td>Planck constant</td>
<td>h [J s]</td>
<td></td>
<td>6.626 068 76(52) ×10−34</td>
<td>0.999</td>
</tr>
<tr>
<td>Electron mass</td>
<td>m_e [kg]</td>
<td></td>
<td>9.109 381 88(72) ×10−31</td>
<td>0.990 0.996</td>
</tr>
<tr>
<td>1/α(0)</td>
<td>a(0)−1</td>
<td></td>
<td>137.035 999 76(50)</td>
<td>−0.049 −0.0020.092</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CODATA:2002 [23]</th>
<th>Symbol</th>
<th>Units</th>
<th>Value (Uncertainty)×scale</th>
<th>Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary charge</td>
<td>e [C]</td>
<td></td>
<td>1.602 176 53(14) ×10−19</td>
<td>e  h  m_e</td>
</tr>
<tr>
<td>Planck constant</td>
<td>h [J s]</td>
<td></td>
<td>6.626 0693(11) ×10−34</td>
<td>1.000</td>
</tr>
<tr>
<td>Electron mass</td>
<td>m_e [kg]</td>
<td></td>
<td>9.109 3826(16) ×10−31</td>
<td>0.998 0.999</td>
</tr>
<tr>
<td>1/α(0)</td>
<td>a(0)−1</td>
<td></td>
<td>137.035 999 11(46)</td>
<td>−0.029 −0.0100.029</td>
</tr>
</tbody>
</table>

5. In equation (12), \( ubit \) should be \( unit \).

6. In Section 4, when quoting from ISO GUM 5.1.2, the first line contains \( uc(y) \) that should be \( u_c(y) \).

7. In the same quotation, the unnumbered equation contains \( \delta x_i \) in the second differential that should be \( \delta x_i \).

8. References: The URLs cited in various references were not all correct. The entire Reference section is given below with corrected URLs.

7 REFERENCES


