Simple proof that this earth is a 4-dimensional space-time

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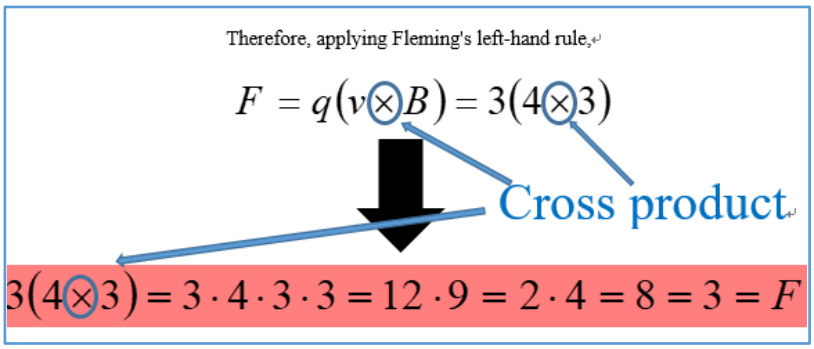
Abstract

In the previous number, I defined the unit of charge as 3 and showed that Coulomb's law holds. In this number, I will explain this earth dimension from the detailed explanation of Fleming's left-hand law in the previous number.

General comments

Begin by showing the previous number again.



Transform the above equation

$$3 \cdot 4 \cdot 3 \cdot 3 = 3^2(4 \times 3) \quad \cdots(1)$$

In my definition series, all numbers represent scalar values, so all matrices adopt determinant values.

Here are two examples.

$$\left|\begin{pmatrix}2&0\\0&2\end{pmatrix}\left(\begin{pmatrix}2&1\\1&1\end{pmatrix}\begin{pmatrix}3&1\\1&1\end{pmatrix}\right)\right| \Leftrightarrow 2^x\left(\begin{vmatrix}2&1\\1&1\end{vmatrix}\times\begin{vmatrix}3&1\\1&1\end{vmatrix}\right)$$

$$=\left|\begin{pmatrix}2&0\\0&2\end{pmatrix}\begin{pmatrix}7&3\\4&2\end{pmatrix}\right| \Leftrightarrow =2^x\times(1\times 2)$$

$$=\begin{vmatrix}14&6\\8&4\end{vmatrix}=8 \Leftrightarrow =2^{x+1}$$

$$\therefore x=2$$

$$\left|\begin{pmatrix}3&0&0\\0&3&0\\0&0&3\end{pmatrix}\left(\begin{pmatrix}3&1&1\\2&1&4\\1&2&3\end{pmatrix}\begin{pmatrix}2&2&1\\3&2&1\\1&4&3\end{pmatrix}\right)\right| \Leftrightarrow 3^x\left(\begin{vmatrix}3&1&1\\2&1&4\\1&2&3\end{vmatrix}\times\begin{vmatrix}2&2&1\\3&2&1\\1&4&3\end{vmatrix}\right)$$

$$=\left|\begin{pmatrix}3&0&0\\0&3&0\\0&0&3\end{pmatrix}\begin{pmatrix}10&12&7\\11&22&15\\11&18&12\end{pmatrix}\right| \Leftrightarrow =3^x\times((-14)\times(-2))$$

$$=\begin{vmatrix}30&36&21\\33&66&45\\33&54&36\end{vmatrix}=756 \Leftrightarrow =3^x\times 28$$

$$\therefore x=3$$

In other words, equation (1) is valid when the matrix from which the scalar values are derived is a quadratic square matrix.

Therefore, since a quadratic square matrix consists of four factors, the space governed by this Fleming left-hand rule turns out to be a four-dimensional space-time (three-dimensional space and one dimension of time).