New Approach towards Classical Electrodynamics

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Abstract: The new outline of old conceptions of classical electrodynamics has been presented. The relations between constant field and electromagnetic wave have been shown.

During the passing from $\nu \neq 0$ to $\nu = 0$ (from an electromagnetic field to an electric or a magnetic field) the velocity of the motion of the electromagnetic field decreases from $v = c$ to $v = 0$.
The electro- or magnetostatic field is something qualitatively different from the electromagnetic field.
It is as same as 0 is the limit of the sequence $\left\{\frac{1}{n}\right\}_{n \in N}$ although it is not the term of this series. It is an analogy to the passing from $m_0 = \varepsilon \rightarrow 0$ to $m_0 = 0$.
It is a qualitative change too.
We have the next "paradox". The magnetostatic field is connected with motion, but it can be constant as the function of time.
The possibility of the discovery of the bound system $\left(\frac{h\,\nu}{c^2} + im\right)$ is bigger in the case of small values of ν, because then the second term may dominate.
There is a smaller possibility to discover the quantum γ or quantum of Röntgen radiation, which are connected with complex mass, than in the case of radio frequency radiation. In the latter case the bigger perturbation effect of complex mass should appear and the effect will have bigger fluctuations of velocity around $v = c$.
This qualitative change connected with the passing from $m_0 = 0$ to $m_0 \neq 0$ is also connected with the passing to additional dimensions D>4.
However, in the case of constant electric and magnetic field the passing from $v = c$ to $v = 0$ means that these fields move with the velocity $v = c$, but it is not visible, because of the translational or rotational symmetry.
Then the electromagnetic wave does not appear, because – according to the Maxwell equations – these fields propagate independently.
In keeping with the Maxwell equations $\frac{1}{c}\ \frac{\partial B}{\partial t} = 0$, but further $v = c$ and $c \neq 0$.
Paradoxically, if we had both $\frac{\partial B}{\partial t} = 0$ and $c = 0$ we would have $\left(\frac{1}{c}\ \frac{\partial B}{\partial t} \rightarrow \frac{0}{0}\right)$ an indefinite symbol in the case of constant field. And something could appear.