Theoretical Proof of Existence of Magnetic Monopoles

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ABSTRACT: The precise, easy and elegant proof of the existence of magnetic charge has been presented.

The fact that – in the case of so called magnetic masses an analogical equation to the Coulomb law and Newton gravitation laws exist – is a proof of the existence of magnetic charge.
The asymmetry of the Nature wouldn't consist in the nonexistence of magnetic charge but in the different (may be less frequent) appearance of the magnetic monopoles.
$E(t) = const$ and $B(t) = const$ correspond to the limit situation:

$$E = \lim_{\omega \to 0} E_0 \, e^{i\omega t}$$

So it passes through all intermediate situations $\omega = \varepsilon > 0$ and $\varepsilon \to 0$. So it passes through the state of the electromagnetic fields moving with the velocity c.
Thus the electric field and magnetic field are examples of fields splitting at the limit $\omega \to 0$ into a constant electric field and magnetic field.
But then the photons of the magnetic field transform into the quanta of the constant electric field and magnetic field.
In the case of the electroweak interaction we have the quanta: $h\nu$, W^+ , W^- , W^0 , where W^+ and W^- have the electric charges.
Similarly, after the transformation of the photon we have the electric tetrad and magnetic tetrad. The former has two electric charges and the latter two magnetic charges.
There is the gradation of the fission of interactions. In this case we have:

$$E_T = h\nu = 0$$

So:

$$\frac{dE_T}{dt} = 0$$

and the value of the Poynting vector is given by:

$$P = E^2 + B^2 = 0 \qquad (1)$$

So, if E is given by a real number (the electric field) the magnetic field must be complex and it must exist in a space with complex coordinates.
$E \neq 0$ implicates $B \neq 0$
and $divE = \varrho_E \neq 0$ because we have assumed that $\varrho_E \neq 0$.

Moreover, (1) implicates that:

$$2EdivE = -2BdivB$$

so:

$$divB \neq 0 \quad \text{and} \quad \varrho_M \neq 0$$

B is totally complex; x, y, z are totally complex.

$$\varrho = \frac{e_M}{V}$$

$$V = x\,y\,z$$

$$x\,y\,z = \varepsilon\,i\,x \;\; \varepsilon\,i\,y \;\; \varepsilon\,i\,z$$

$$\varepsilon = \pm 1$$

$$divB = \frac{\partial B_x}{\partial x} + \frac{\partial B_y}{\partial y} + \frac{\partial B_z}{\partial z} = \frac{e_M}{\varepsilon^3 xyz}$$

so:

$$\varrho_M = \pm i|\varrho|$$

So the magnetic charge is totally complex. It is placed on the axis of charge perpendicular to this one on which an electric charge is placed (see figure).

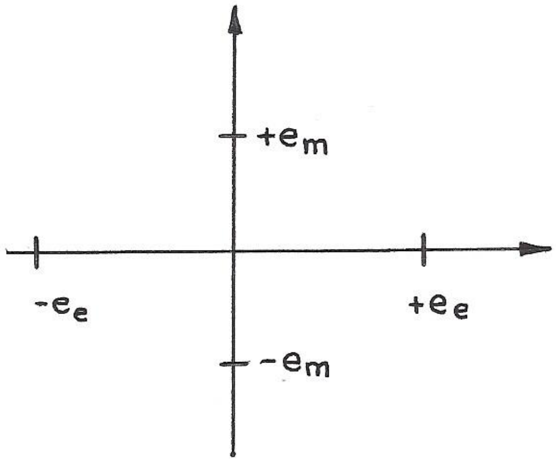

Fig.

Moreover, the magnetic charge is placed in the space with the coordinates purely complex, which are perpendicular to “our” coordinates.

But generally the magnetic field can move with the velocity $v = c$ and here there isn’t any discrepancy, because:

$$c = \frac{dx}{dt} = \frac{idx}{idt} = \frac{d(ix)}{d(it)}$$

On the axis “y” of magnetic charge we have the limit velocity too.
Now it is understandable why magnetic charge is so difficult to discover.