

Review of: "Supersymmetry Via EDM (Electric Dipole Moment)"

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At first glance, the article "Supersymmetry Via EDM (Electric Dipole Moment)," written by Rodney Bartlett, addresses the neutron electric dipole moment (nEDM) and its smallness or non-existence. nEDM has never been detected in experiments; its Standard Model prediction is very small (but not equal to zero); supersymmetric theories give larger predictions (but also very small).

However, a more detailed analysis shows that the given article is not a scientific article in the ordinary sense, but rather a stream of consciousness. It tries to address as many problems as possible (from fluid dynamics and Mercury's precession to the Riemann hypothesis and human DNA), jumps between them chaotically, and none of these transfers has even the slightest scientific worth.

Let us give some examples.

1. The article mentions a "correlation" between the Einstein and Maxwell equations on one side and the Prandtl-Glauert equations from fluid dynamics. The author refers to his unpublished paper [1]. However, the only "correlation" is that the Prandtl-Glauert equations have $1/\sqrt{1-M^2}$, where M is the Mach number, somewhere in the formulas (which is similar to the Lorentz factor). No other correspondences between the two systems have been pointed out. Yes, there exists some kind of analogy between the Maxwell equations and equations from fluid dynamics, but the given article tells us about something different and vague. For example, after mentioning the analogy, the article suddenly starts to tell about the refraction of electromagnetic waves in a fluid solution.
2. The article tries to explain the nEDM undetectability, but the author's explanation, in essence, is contained in one phrase: "When minus numbers become plus and plus nos. become minus, the equation is $(1/3) + (1/3) + (-2/3)$, which, in this case, represents undetectability." This leaves nothing short of a field for speculation.
3. The section "Riemann Hypothesis, Wick Rotation, And Mercury's Precession" tries to connect the Riemann hypothesis (which is a statement about zeros of a concrete function in the complex plane) and the fundamental structure of space-time, as well as to connect the Wick rotation (which is just a mathematical trick to regularize integrals) and a planet's orbit rotation. It is very difficult to criticize this because every statement or part of it is senseless. However, we can note that the article never uses the formulation of the Riemann function. Thus, if we suppose that the reasoning is correct in some way, it should be applicable to any function. On the other hand, it is easy to introduce infinitely many functions for which (instead of the Riemann function) the "Riemann hypothesis" is true, as well as infinitely many functions for which it is false.

4. Any statement that something consists of (or does not consist of) Möbius strips requires a formal mathematical definition. Otherwise, it admits infinitely many interpretations and speculations. Analogously, statements like "The Higgs field may be regarded as a unification of the gravitational and electromagnetic fields" require at least a formal definition, but it is also desirable to give a justification.