

Open Letter to the President of the Royal Society

17th March 2007

The Double Helix Theory of the Magnetic Field

Dear Lord Rees,

Consider an electron undergoing a mutual central force orbit with a positron such that the axis of rotation is perpendicular to a line joining the electron to the positron. Now imagine a column of such rotating electron positron dipoles stacked in their mutual axial plane, with the electrons angularly phased above the positrons in a twisted rope ladder fashion. You will agree that a Coulomb force of attraction will prevail along the axis. We will effectively have a helical spring. Now imagine a sea of these rotating electron positron dipoles forming an elastic solid and such that their axes of rotation connect together to form solenoidal field lines \mathbf{H} . These \mathbf{H} field lines will cross directly between the north pole of a magnet and the south pole of another magnet. The Coulomb force will cause the two magnets to attract each other as if they are being pulled together by helical springs. When two magnetic north poles are brought close together, the \mathbf{H} field lines will spread away from each other. Centrifugal repulsion acting laterally between the \mathbf{H} field lines will cause the two magnets to repel each other. The hydrodynamics of this arrangement are treated in detail in James Clerk-Maxwell's 1861 paper '*On Physical Lines of Force*'. Would you consider this double helix model to be a viable physical explanation for the magnetic field? The corollary of this arrangement is that charged particles will experience a Coriolis/Lorentz force $\mathbf{F} = \mathbf{v} \times \mathbf{H}$ as they traverse the \mathbf{H} field lines at right angles. \mathbf{H} will of course represent vorticity. I look forward to hearing from you.

Yours sincerely

Frederick David Tombe

e-mail: sirius184@hotmail.com

17th March 2007

Philippines

For further detail see '*The Aether and the Electric Sea*' at

<http://www.wbabin.net/science/tombe12.pdf>

(Link disconnected. Updated version can now be viewed at,

https://www.researchgate.net/publication/327974238_The_Aether_and_the_Electric_Sea_The_Link_between_Gravity_and_Electromagnetism)

-----Original Message-----

From: David Tombe [mailto:sirius184@hotmail.com]

Sent: 27 March 2007 09:03

To: Gray, Carol; Webmanager
Cc: andrew.tait.01@bbc.co.uk;

Subject: A Letter to Lord Rees, President of the Royal Society

Dear Carol,

Regarding the enclosed letter which I sent to you on 17th March 2007, I am still awaiting an acknowledgement of receipt.

In the Royal Society website near the top of your page on strategic priorities for 2010 and beyond, you mention how the double helix figures large in the Royal Society's annals.

I'm sure that Lord Rees is bound to have some comments to make on the double helix theory of the magnetic field.

I would be very keen to hear his comments.

Yours sincerely
David Tombe

-----Original Message Follows-----

From: "Gray, Carol" <Carol.Gray@royalsoc.ac.uk>

To: "David Tombe" <sirius184@hotmail.com>

Subject: RE: A Letter to Lord Rees, President of the Royal Society

Date: Tue, 27 Mar 2007 12:50:55 +0100

Dear Dr. Tombe,

Thank you for your e-mail of 27 March setting out your interesting ideas on the double helix theory of magnetic fields.

You appear to have sent me this material in the hope that I - or the Royal Society, in some sense - will play a part in disseminating these results, or at least make sure they are evaluated. And, of course, this is an important part of what The Royal Society does, and has done since it was founded in 1660. On the other hand, however, our mechanisms for carrying out these kinds of scientific reviews, discussions and evaluation of emerging or controversial issues, is not through individual initiatives on the part of the President.

The usual way to bring new ideas to the attention of the scientific community is through the long-established processes of submission to peer reviewed journals (including, but certainly not restricting to, the Society's own journals for which there are routine and clearly established processes for submission). More generally, the Society organises discussion meetings,

and puts together working parties on particular topics that may be at the interface between science and society, as the occasion arises. But for all of these there are regular processes, which can be found, for example, on our website.

In saying all this, I am of course aware that the process of peer review can have many frustrations and imperfections. Overall, however, it is a system that serves science better than any other. It certainly is superior to earlier times, when dissemination of ideas depended upon the patronage of prince or potentate. So that is why it would be neither possible, nor desirable, that any of the above-mentioned processes work by the fiat of any one individual, the President or anyone else.

In short, I would urge you to submit your work to an appropriate journal. And I wish you every success in this.

Yours sincerely,
Martin Rees

Lord Rees of Ludlow
President
The Royal Society
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-----Original Message Follows-----

From: "David Tombe" <sirius184@hotmail.com>

To: "Gray, Carol" <Carol.Gray@royalsoc.ac.uk>

Subject: The Double Helix Theory of the Magnetic Field

Date: 29 Mar 2007 05:53

Dear Lord Rees,

Thank you very much for your reply of 27th March 2007. I fully appreciate what you say and the fact that there is not much that you can do as an individual. The reason why I took the unusual step of contacting you directly is because this is not a straightforward matter. I have been aware since 1982 that any scientific paper which contains the views that I have been expressing, will quite simply not be accepted for publication in a mainstream peer reviewed journal.

Since my argument is extremely simple and transparent, I

decided that I would send it to you in order to hear your own personal comments.

A form 2 chemistry pupil who has just learned about electrons would have no trouble with linking the double helix model to the magnetic lines of force which he/she saw mapped out with iron filings on his/her very first day of form 1 physics.

The argument basically comes in two parts. The first part involves Maxwell's equations. There is one Maxwell equation in particular that cannot be derived other than in the manner that Maxwell first derived it. The displacement current cannot be added to Ampère's circuital law unless we have a dielectric medium. On the basis of scale, we have no choice but to conclude that space is densely packed with an electron positron solid.

The next stage of the argument concerns arranging these electrons and positrons in sympathy with Faraday's Lines of force and with the arrangement of Maxwell's sea of molecular vortices.

I am not expecting you to do anything other than perhaps discuss the idea with your colleagues. I will now enclose a web link which gives a summary of my twelve articles and will link you to all twelve of them. <http://www.wbabin.net/science/tombe12.pdf> †

They are all numbered in sequence. Eleven of them have been written within the last fourteen months. Number 2 was effectively written in 1982 and contains the primary argument which has since been vastly extended.

Yours sincerely
David Tombe

† Link now disconnected. See updated article in the new link at <https://www.researchgate.net/publication/327974238> The Aether and the Electric Sea The Link between Gravity and Electromagnetism

Note added 19th January 2022. As regards the other eleven articles mention in the 2007 letter, they have mainly been updated since then. The successor papers are listed here, with those in red no longer promoted.

1. <https://www.researchgate.net/publication/295010637> The Double Helix Theory of the Magnetic Field
2. <https://www.researchgate.net/publication/228917209> Gravitation Electrostatics and the Electron-Positron Aether Ether
3. <https://www.researchgate.net/publication/327552532> The Unification of Electricity and Magnetism
4. <https://www.researchgate.net/publication/242593984> The Coriolis Force in Maxwell's Equations A comparative study of Maxwell's 1865 p

aper 'A Dynamical Theory of the Electromagnetic Field' and his 1861 paper 'On Physical Lines of Force'

5. <https://www.gsjournal.net/Science-Journals/Research%20Papers-Astrophysics/Download/198>
6. <https://www.gsjournal.net/Science-Journals/Research%20Papers-Mechanics%20/%20Electrodynamics/Download/201>
7. <https://www.gsjournal.net/Science-Journals/Research%20Papers-Mechanics%20/%20Electrodynamics/Download/210>
8. <https://www.researchgate.net/publication/338178273> The Richness and Quality of the Electron-Positron Dipole
9. <https://www.gsjournal.net/Science-Journals/Research%20Papers-Mechanics%20/%20Electrodynamics/Download/221>
10. Withdrawn
11. <https://www.gsjournal.net/Science-Journals/Research%20Papers-Mechanics%20/%20Electrodynamics/Download/205>

19th January 2022