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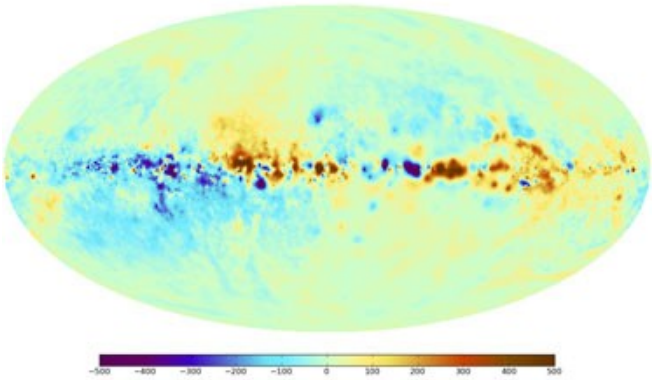
Galactic Magnetism



by Miles Mathis

This paper is just a short commentary on a recent press release from the Max Planck Institute on the mapping of the galactic magnetic field. The quote that jumped out at me was this one:

The Milky Way, along with all other galaxies, possesses magnetic fields. Until now, scientists have been puzzled over the origin of these galactic magnetic fields. The assumption was that the magnetic fields were created by processes where mechanical energy is converted into magnetic energy. These same kinds of processes occur in the interior of the Earth and the Sun. The map that the team has created will give scientists valuable knowledge about the structure of Galactic magnetic fields throughout the Milky Way.

What they should say is that these processes of converting mechanical energy to magnetic energy are *assumed* to occur in the interior of the Earth and Sun, based on current models. We actually have no proof that they are, and lots of evidence to the contrary.

"What evidence?" you may ask. Well, William Gilbert produced some of the earliest evidence with his terrellas, or little Earths, back in 1600. He showed that the Earth acted like a magnetized object by comparing it to a sphere he shaped out of a lodestone. By

passing a small compass over the terrella, Gilbert demonstrated that a horizontal compass would point towards the magnetic pole, while a dip needle, balanced on a horizontal axis perpendicular to the magnetic one, indicated the proper "magnetic inclination" between the magnetic force and the horizontal direction.

How is this evidence? Because the lodestone is magnetized without converting mechanical energy to magnetic energy. It is the magnetism of a terrella due to a dynamo in the core? No, it is due to charge. Why can a lodestone be explained with charge but the Earth needs a dynamo? Put simply, it is because modern physicists can't figure out where the Earth's charge comes from. Since they can't point to a source, they prefer to hide it. But there are two pretty obvious sources, and it takes a large degree of dullness to miss them. The first is the charge at the quantum level, which does not disappear when you decrease your magnification. Every electron and proton is charged, and that charge does not disappear when they combine in atoms. The atom is fairly neutral, but the ions are still charged inside. Charge offsets to some degree, but it doesn't disappear. The second is the Sun, which is bombarding us with E/

M radiation all the time. Everything contains charge, but it should be doubly obvious that E/M radiation contains charge. How do they think these ions are ionized: charge. Modern physicists seem to think that charge is something like a kick, that doesn't persist after the kick. But we know that charge is more like an injection or a coat of paint, that the ion carries with it.

Being "puzzled" over the creation of magnetic fields at the beginning of the 21st century is a bit strange, in my opinion, given that we have known of the charge field since the time of Ben Franklin, in the late 18th century. And the charge field has been separated from the E/M field since the late 19th century. It was then that we understood that charge *caused* E/M effects, but was not equivalent to them. In other words, we had evidence, and understood—or should have understood—that charge and electromagnetism were not equivalent. As it is now, physicists believe we have charge at the quantum level but not the macro-level, which is indication enough that they aren't considered to be equivalent. Electromagnetism is an effect on ions, but charge is not this effect, it is the cause. As another indication that this is partially understood is the current existence of messenger photons, to mediate charge. If charge were the same as E/M, we wouldn't need a subfield of virtual photons to mediate it.

The puzzlement and befuddlement was caused in the early 20th century by a quantum mechanics that hid the mechanics of charge under dense math and denser "interpretations." The charge field was buried under a heuristic math that gave us final results, but no clear physics. Charge has remained just an abstraction since that time, and QM and QED haven't been able to clarify it beyond the old + and – of Ben Franklin. Because charge was so deeply buried, current physicists have all but forgotten it exists. At the level of our measurement, only the E/M field appears to exist, and charge is just a thing you learn about protons and electrons, and forget.

This failure to express charge as a physical field has caused a century-long muddle, one that gets more muddled with each passing decade. It has caused the dark matter muddle, where mainstream physicists can't see that their dark matter is just charge. And it is causing this puzzlement in this press release as well. Because physicists have forgotten about the charge field, they have to fill the hole of the charge field with something else over and over. Because they don't have the charge field to work with, they have to claim that the Earth's core converts mechanical energy to magnetic energy. Patently absurd, because magnetic energy is caused directly by charge, and they already know that. Or, they know it in most quantum mechanical experiments. But they can't make the link between those experiments and the magnetic field of the Earth. There is a total disconnect between quantum physics and macro-physics. I suppose this disconnect is due to specialization, and particle physicists seem to be mostly uninterested in macro-problems—unless they are supersexy problems like black holes or the big bang. The Solar System and the Earth are beneath their notice.

To be specific, particle physicists know charge causes magnetism, because charge causes electromagnetism, and magnetism is a part of that. The spin part of quantum mechanics is the magnetic part. Spin IS magnetism, or the cause of it. There are all sorts of spins and chiralities and angular momenta at the quantum level, and although most of them are buried under the misnomer "virtual," they still exist in the math. Particle physicists will tell you that quanta don't really spin, but their equations would fall apart immediately without angular momenta in the math in many places.

Since the Earth is made up of quanta, and quanta are mediated by charge, the Earth is mediated by huge amounts of charge. If you could weigh all the charge in the Earth, it would outweigh the Earth itself by 19 times. But mainstream physicists at all levels find a way to forget that on purpose. Either they haven't studied the equations closely enough to know it, or the idea makes them uncomfortable, and they put it in a box.

It is charge that causes and explains magnetic fields, not any conversion of mechanical energy. The very idea that magnetism is caused by conversion of mechanical energy is so naïve and backwards it passes belief. It is a holdover from pre-modern times, like the idea that leeches cleanse the blood. That it persists into the 21st century and makes it into press releases from the Max Planck Institute is somewhat surreal, like seeing a mention of bleeding from the American Medical Association or trepanation from the American Psychological Association. At the quantum level, magnetism is caused by charge. Why would it be caused by mechanical conversion at the macro-level? Have physicists forgotten that the macro-level is a composition of the quantum level?

Yes, charge is mechanical energy, strictly, since I have shown it is caused by simple collision and bombardment of photons. But that is not what these physicists mean by mechanical conversion. They are trying to explain magnetism without charge. They are trying to create a magnetic field by pressure and temperature and things like that: by interactions at the molecular level or above. That is completely unnecessary. All they have to do is use the charge field they already have, as I have done in my papers. They don't need a dynamo at the center of the Earth, because the charge field is already a dynamo capable of explaining everything. And that applies to the galaxy as well, and to the universe as a whole.